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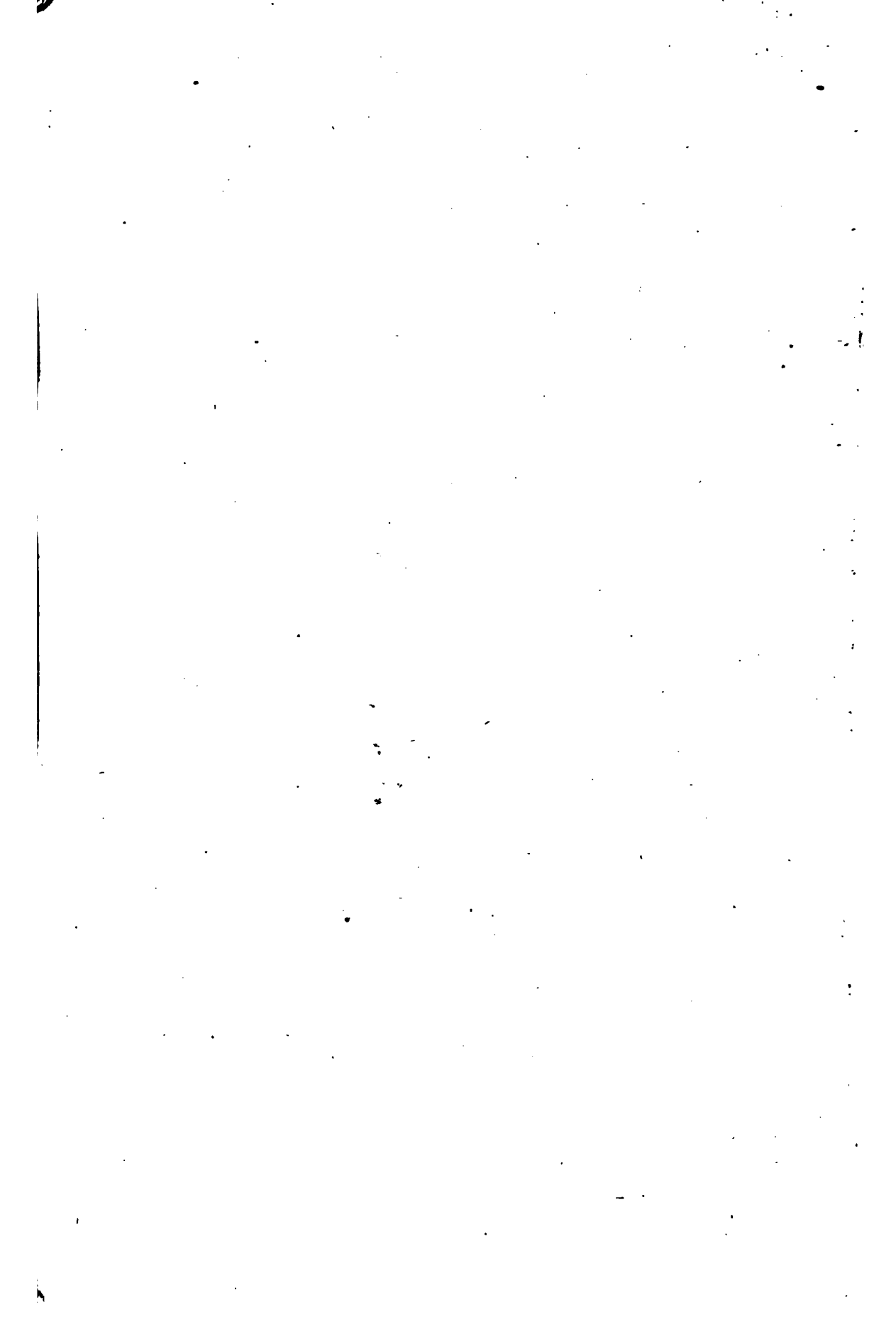
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COURSE OF CLINICAL LECTURES ON SURGICAL DISEASES.

DELIVERED AT THE HOSPITAL OF LA CHARITÉ,
BY PROFESSOR VELPEAU.

FISSURE OF THE ANUS.

GENTLEMEN,—The patient who now occupies bed No. —, is affected with fissure of the anus, a disease which still requires for its elucidation careful research. Notwithstanding the labours of Boyer, Beclard, Dupuytren, and a few other surgeons, I believe that we have still much to learn of the causes, symptoms, and treatment of this painful affection; I shall, therefore, embrace the present opportunity of directing your attention to this subject.

Fissure of the anus consists in the existence of a small narrow ulceration seated in the radiating folds at the margin of the anus, and usually attended with very excruciating pain, whenever the patient goes to stool. Before Boyer's time this disease was almost entirely unknown, and if we examine what has been said concerning it by writers who preceded him, we shall be convinced that our knowledge of its causes, symptoms, &c., dates within the last twenty-five or thirty years.

Let us first turn our attention to the causes of fissure of the anus. This disease may be excited by constipation, piles, the evacuation of hard fecal matter, in large masses, by mechanical injury, from the end of a lavement apparatus, for example, &c.; but in many cases it is developed without our being able to discover or trace any probable cause. It arises, in most instances, in a very gradual manner, and soon assumes the characters of other ulcerations about the part; hence we find great difficulty in assigning to it its true and efficient cause; nor do I think that we could produce the disease by artificial means. It exists in individuals of both sexes, but attacks females more frequently than males; it commonly appears between the ages of twenty-five and sixty, but has been observed at the ages of eighteen or twenty. I have seen it in a young man eighteen years of age, and in a girl of twenty-one; children, however, seem to be exempt from this affection. One of the most remarkable points connected with the history of fissure of the anus is the great pain and suffering by which it is accompanied; effects which we are unable to reconcile with the slight degree of organic injury constituting the complaint. M. Blandin and M. Harvey de Chégoïn think that fissures seated above or below the sphincter ani are of an insignificant nature, and heal of their own accord, or under the most simple treatment; while other fissures are attended by the symptoms described by Boyer. This seems to me to be a speculative distinction, for I have seen several cases of fissure of the anus in which violent pain was a prominent symptom, although the affection

did not implicate the sphincter muscle of the anus.

One circumstance, gentlemen, connected with the history of this disease merits particular attention. The sphincter ani muscle is in a state of permanent constriction. But is this a cause or an effect of the disease? Boyer asserted that this constriction formed a principal exciting cause, since division of the sphincter muscle immediately calms all suffering, without any application whatever having been made to the fissure itself. On the other hand, MM. Roche, Sanson, and Blandin contend that the constriction of the sphincter is a result of the complaint, because the ulceration may frequently exist without our being able to discover it. We cannot, it is true, deny that fissure may sometimes exist without constriction, although it be accompanied by the signs of the latter affection, such as violent pain, burning heat, &c., on going to stool. I have witnessed several examples of this; but who can affirm there is no fissure, merely because the surgeon who examines may be unable to find one? The great authority of Boyer is the only cause of our attaching any weight to his assertions, for they have never been confirmed by the result of *post mortem* examinations. Perhaps, however, there may be some means of reconciling opinions on this interesting point in the history of fissure of the anus. Thus, we can understand how a small fissure, being irritated by the passage of stercoraceous matter, may excite spasmodic constriction in the muscular bands underneath it; and again, we can believe, that strong spasmodic contraction of the anus, by inducing costiveness, may cause excoriation of the skin about the anus, and thus become a cause of fissure. Under this point of view constriction of the sphincter ani and fissure are two distinct affections which are independent, but have a strong tendency to merge one into the other.

The symptoms of the disease are the following: the patient first experiences some pain on going to stool, and for some time after an evacuation from the bowels. The pain gradually increases in intensity and period of duration, and when it has arrived at its maximum, the patient suffers the most excruciating torture. The sensation excited by the passage of feces is compared by the patient to the pain occasioned by a red-hot iron, or to the tearing asunder the margin of the anus, and brings on a feeling of faintness or threatening of convulsions. In the intervals between each stool, the patient merely feels some lancinating pain or scalding, with a sense of weight about the part, and colic. As the time for evacuating the bowels approaches, the pain is manifestly increased, is most violent during the moment of expelling the feces, and then gradually declines for a few hours. It occupies a circumscribed space about the margin of the anus, and is often attended by pulsation of the vessels like that which accompanies phlegmous inflammation. The bowels now become obstinately constipated, and evacuations take

place every eight or ten days, unless purgatives or clysters be employed. The patient feels such a dread of going to stool, that he defers the moment as long as possible, although he knows that such conduct will aggravate his sufferings. One patient, at the Hôtel Dieu, was heard to exclaim that he would rather die than go to the water-closet, so great was the pain during evacuation of the bowels. Some persons who labour under this disease have recourse to curious methods of avoiding the inconvenience occasioned by the passage of faecal matter; thus, Boyer mentions the case of a lady who kept a canula constantly fixed in the rectum, to prevent the suffering which she experienced at each evacuation. But fluid stools, or even the passage of air, will occasionally excite very severe pain. Some patients are able to walk about, sit down, or attend to their ordinary business during the intervals between the attacks, but others are compelled to keep their beds in spite of the increased heat and pain thus occasioned. The shooting pains extend towards the bladder or uterus, and in some cases to the hypogastric region. The digestion is impaired; the patient eat little, to avoid the necessity of going to stool; he becomes thin and of a yellow hue; the face is expressive of suffering, and on looking at it, one would say that the patient laboured under some severe organic disease: occasionally the slightest movement will excite the accessions of pain; coughing, spitting, blowing the nose, speaking or singing, will aggravate it; any excess in eating or drinking will have a similar effect. The presence of the catamenia, also, increases the sufferings of women. The pain is at once excited by introducing any body into the rectum, as the pipe of a syringe, &c., and when we attempt to pass up the finger, we not only occasion severe agony, but feel that it is powerfully grasped by the constrictor muscle of the anus.

On separating the folds of the anus and drawing the rectum gently down, we perceive, at the bottom of some one fold, a small ulcerated fissure about one or two lines broad, by four, eight, ten, or twelve in length. The edges of the fissure are generally free from hardness; they are of a bright red colour, and bear the strongest resemblance to the cracks which so often exist in the hands, feet, or corners of the mouth. A very small quantity of pus may be discharged from the fissure, and in some cases a little blood. It often happens that we find it extremely difficult to discover the fissure, hidden as it is in the folds of the anus, which is usually, in such cases, more or less of a funnel shape: we must carefully unfold the integuments, and desire the patient to make a few expulsive efforts. The fissure is then exposed: it may occupy any point of the margin of the anus, may scarcely reach the edge of the mucous membrane, or may be confined to the parts above the sphincter. In many cases the fissure seems to commence from or terminate in a pile; and usually it extends in a vertical direction upwards. We can often assure ourselves of the existence of this lesion by the mere touch; the instant the finger comes in contact with the fissure, the most violent pain is experienced by the patient, and we feel a hard, wrinkled chord which indicates the precise situation of the crack. Such, gentlemen, are the ordinary symptoms of fissure of the anus; severe burning pain at the moment of going to stool;

narrow, elongated, and superficial ulceration at the edge of the anus; and violent contraction of the sphincter muscle.

Progress of the disease.—Fissure of the anus does not present all the symptoms now enumerated, from its commencement; it begins with very slight pain, or itching; tickling feel or creeping sensation, with heat after each stool. These symptoms may continue for six months, or even a year, before they become sufficiently severe to excite much attention. In other cases, the disease will acquire its greatest degree of intensity in a few weeks, or may be very severe from the commencement. You are not, either, to imagine that the series of symptoms already described will present itself in every case; many patients feel no pain whatever; others (and the patient on whom I am about to operate is of this class) suffer severe and almost constant pain. Our patient has a long fissure, with greyish, irregular, and granulated base; resting on indurated cellular tissue. She suffers much from burning pain, whenever she goes to stool; the anus contracts violently, and it is with the utmost difficulty that we can introduce a canula, or even the tip of the little finger. You should therefore remember that Boyer's description of fissure of the anus is merely a general one, and that several varieties may present themselves to us, in which the symptoms described by Boyer do not exist, and to which the treatment recommended by him would be inapplicable.

Treatment.—Some cases of painful fissure may get well of their own accord. I knew a medical student who laboured under this disease for seven or eight years, and then recovered without operation or any treatment. A few days ago I saw a patient in town who equally got well without treatment, after three or four years. However, patients are in general very anxious to adopt some means of relieving their sufferings, and removing the unpleasant disease under which they labour. This may be effected with or without operation. Several ointments have been employed for this purpose. Boyer obtained a cure in one case by throwing into the rectum two or three spoonfuls per day of an injection composed of hog's lard, walnut juice, sorrel juice, and almond oil, of each four ounces; but here the fissure was attended with slight contraction of the sphincter.

Mr. Descudé informs us that we can cure the disease with large doses of the oleum hypocistami, and topical applications of mercurial ointment. Some surgeons speak highly of *douches* of cold water, of decoctions of chærophyllum or poppy heads, &c. In a few cases I have succeeded with white precipitate ointment. Dupuytren employed with excellent effect the following ointment, introduced into the anus by means of a tent: extract of belladonna, two drachms; lard, two ounces; honey, two ounces. More recently, some practitioners have spoken in very favourable terms of *monesia*, and one or two cases of cure by this remedy have been cited; but I fear that it will soon meet with the fate of most of our new remedies, which flourish for a time and are heard of no more. When the above-mentioned means have been tried (and we must often try them to satisfy our patients) without success, we must have recourse to one of the following, viz. cauterization, dilatation, division of the sphincter muscle, or excision of the fissure. The disease is sometimes cured in the most satis-

factory manner by running a stick of nitrate of silver over the whole surface of the fissure. Beclard pretends that he never failed in this way; but other surgeons have not met with the same success; I have tried it myself in many cases without obtaining any benefit, and think that the cases which presented themselves to Beclard must have been slight, and unaccompanied with contraction of the sphincter muscle; besides, Beclard employed dilatation at the same time. Cauterization can only cure fissure of the anus by modifying the ulcerated surface, and transforming it into a simple wound, which heals like common solutions of continuity. In this way we explain the success obtained by Guy de Chauliac, and Dionis, who cauterized or scarified the ulcers, and by Guérin, &c., who applied the actual cautery, or irritated the surface of the sore with the nail, &c.

Dilatation, by the introduction of tents of lint gradually enlarged, into the rectum, has often been attended with the best effects in the hands of Beclard, Dubois, Marjolin, and others. I have employed this mode of treatment with success in some cases, but it is tedious and painful. In order to shorten the period of pain and diminish its violence, we should employ the largest tents that we can introduce into the rectum. The pain is at first very severe, but as soon as we get to the fourth or fifth tent, it is much mitigated; the tents may be covered with any of the ointments which I have already mentioned to you. However, I should remark, that the composition of the ointment does not seem to have any effect whatever. I have tried them all, and afterwards common cerate, and found the latter to answer as well. Dilatation then is the chief element of cure in such cases, and I believe that considerable success would attend its use, if we could induce our patients to resist the pain which it, in the first instance, always occasions.

Incision of the sphincter ani was proposed by Boyer, and recommended by him as the best, indeed the only mode of treating fissure of the anus; his practice has been followed by most of our surgeons up to the present day. Boyer regards this method as infallible, yet several practitioners mention cases in which it has failed. He was naturally led to advocate this mode of practice, because he believed that contraction of the sphincter ani was the chief cause of fissure.

The preparatory steps of this operation are exactly the same as those for fistula in ano. The lower intestines are to be emptied by means of a lavement, or some mild purgative, in order to ensure quietude for some time after the operation. The instruments employed are a straight, probe-pointed bistoury; a common bistoury; a large tent; a T bandage, and all the minor accessories. The patient is placed on the edge of a bed, with the head low, the under limb extended, the upper one flexed, and the buttocks kept widely apart by assistants. The surgeon now introduces the index finger of his left hand into the rectum, guides along it the flat side of his probe-pointed bistoury, and divides the sphincter. Should the fissure occupy the median line in front, he must not cut upwards, for fear of injuring the urethra or vagina. Boyer thought it sufficient to divide the sphincter at any point, without caring where the fissure may be; but I am of opinion, that you will do well to pass the blade of the knife through the fissure at the same time that you divide the muscle. When this

has been accomplished, you continue the incision upwards and downwards for an inch or two, so as to cut through the whole thickness of the sphincter. A single incision is usually sufficient; but if there be several fissures, or if excessive contraction of the sphincter be present, then we must make a second incision on the opposite side of the anus. When the edges of the fissure are rounded off, hard, and thickened, we seize them with a forceps, and remove the hardened portions either with the knife or scissors.

The dressing is very simple. A tent of lint covered with cerate is placed between the lips of the wound, but its upper extremity must reach about an inch beyond the superior angle of the incision. The space between the buttocks is then filled with lint, and the whole supported with a T bandage. The tent must be supplied every day until cicatrization takes place. I have said nothing of the occurrence of hæmorrhage, for it is almost impossible that any such accident should happen; but were it to arrive, you must have recourse to the usual means of arresting it, with which you are all familiar.

Such, gentlemen, are the methods of treatment generally employed for the cure of fissure of the anus; cauterization, dilatation, incision. The latter treatment is successful in a vast majority of cases; but as some modern practitioners have insisted on the point, that constriction of the anus is the effect not the cause of fissure, their opinions have produced some new ideas relative to the treatment of this affection. Upon the principles of these gentlemen, I have practised excision of the fissure instead of dividing the sphincter muscle. This operation had been highly spoken of by Mothe and Guérin: I had mentioned it myself in 1832, and some of my operations were published in 1836. The following is the method which I adopted. The patient is placed in the same position as for incision of the sphincter; the point of the border of the anus occupied by the fissure is then seized with a hook, and a couple of strokes of the bistoury, on the right and left, complete the excision of the fissured part. Sometimes I employed the scissors to remove it, but always avoided cutting the muscular tissue underneath. The operation is soon over, and unattended with pain: I have performed it eight or ten times at least, and have almost always succeeded in curing the patient. In one or two failures, I was unable to find out whether the want of success depended on my not having cut out all the diseased structure, or on some other cause. I believe that when the complaint is of long standing, we should divide the sphincter, and at the same time remove the ulceration; that is to say, combine incision and excision together. I shall do this in the case we are about to operate on. The disease here has existed for several years; the ulcer is large, with a greyish, lardaceous base; and it is very probable that simple incision of the muscle would fail to effect a cure. You may ask me, perhaps, why I employ excision, and do not remain content with division of the muscle, a mode of treatment which has been sanctioned by experience. My reasons are the following. Division of the sphincter is an easy and quick operation, and attended almost certainly with success; but it compels us to cut through the deeper-seated tissues beyond the muscle. The wound which results always suppurates for some time, and may occasion dangerous accidents. The inflammation and for-

mation of matter may extend to the pelvis, and compromise the patient's life: I have seen two cases in which the patients died after a division of the sphincter for fissure of the anus. The operation of excision is entirely free from this danger, because the cellular tissue beyond the sphincter is not touched. The resulting inflammation is very slight, and the wound requires to be dressed for three or four days only. Finally, it is an operation much more simple than division, and one which we should always prefer in recent cases; but when the disease is of long standing, and the contraction of the sphincter violent, we should combine the two operations, so as to ensure success in the most obstinate cases.

PARTIAL AMAUROSIS CURED BY DIVISION OF THE RECTI MUSCLES.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—Having been engaged, during many of the months last past, in an active inquiry into all the circumstances with which Strabismus is connected, I have not in any part of the subject been more surprised, than with that which concerns the changes effected on the sight by the division of the different muscles; indeed, in many instances, the restoration to sight was so wonderfully complete, that I soon began to consider the probability of my being able to restore the sight in certain cases of blindness, where no strabismus or unnatural position of the eye was present, by dividing one or more of the recti muscles: I therefore gave much attention to the various cases of amaurosis which presented themselves to my notice, and those which appeared most likely to be relieved by operation, and which were otherwise hopeless, were accordingly selected. The results of these cases have been most satisfactory, and have quite equalled my most sanguine expectations.

The intentions with which I submit the present paper, are to place on record the prominent features of a case of amaurosis which has been cured by an operation, performed expressly for its cure; and to claim the fact of my being the first surgeon to introduce to the profession this important improvement in ophthalmic surgery.

Previously to entering on the report of the case, it seems necessary that what is here meant by the term amaurosis should be clearly defined. It is, then, that state of the eye in which there is a more or less loss of vision, without any detectable defect in the structure of its globe, or of its transparent contents.

Sarah Hicks, aged 22, an intelligent woman of delicate appearance, has light brown hair, and dark irides.—Catamenia regular and natural.

Position of both eyes natural, and in appearance healthy, but the right eye is slightly smaller than the left.

Pupils not more than ordinarily dilated; irides act freely and in union, when equally and simultaneously exposed to the light; but if the light be admitted to the eyes separately, the right iris, which is slightly irregular, will contract more slowly and less completely than the left.

She states that when both her eyes are open she cannot work at her needle, or read, or view small objects for more than a few minutes, without much dimness and confusion of sight being produced, which compel her to rest her eyes. If the left eye alone be used, she does not suffer any inconvenience from the sight for several hours; but if the right be used by itself, dimness or mistiness, which is constant, exists to such a degree that she cannot see, in a strange place, to guide herself about. By the right eye she can distinguish faintly the bars of a window, but not the tassel cord which is attached to the blind; also, she can distinguish between the print and margin of a page, though she cannot read the largest printed letter. The mist before the right eye is *least* in a direction towards the *right inner canthus*.

She is very subject to giddiness, and to pain over the right brow and temple; has experienced severe pain over the right side of the face and nose. The pains commence if she begin to read, work, or bustle about; and are generally worse in the morning, or at night, when candles are present. At some times, the dimness of sight and pains have been so slight that she has been enabled to work, during several hours, without inconvenience; at other times she has not been able to do a quarter of an hour's work, or even to follow her occupation as servant: for, if she attempted to exert herself, or to move quickly from place to place, giddiness with pains about the head and eye would commence, which would become so intensely severe that she would almost be deprived of sight: indeed, on three different occasions she has found herself perfectly blind with both eyes for several hours: the sight afterwards gradually returned to its previous condition.

The history of S. H.'s complaint is as follows; about two years since, while at needle-work, she felt suddenly a mist or fog come over both her eyes, which, by closing the right eyelid, was removed; also, she felt, at the same time, a curious fluttering sensation in the right eye, which, to use her own words, resembled "the jumping of a fly." The mistiness and sensation continued, and became so troublesome, that she was not only obliged to abandon all attempts at needle-work, but to leave, for several days, her situation as servant: after which she returned to her place, but, at the end of one month, again was compelled to quit her mistress for a longer period, on account of the recurrence of the giddiness, the headache, and confusion of vision. She then placed herself under medical treatment, to which during the last six months she attended, without any apparent benefit: her surgeon then advised her to quit London, and try the effect of her native air. While she continued in the country, she remained afflicted by so much pain and imperfection of vision, that she was not able to earn her living, or to do a day's work. Moreover, several medical men had seen her, and gave her so little hope of a recovery, that she had no prospect of again being able to support herself.

Her medical treatment has been bloodletting, blistering, and probably mercury; on one occasion, after a bloodletting, she describes herself to have perceived with the right eye "sparks and flashes of fire."

1841. March 1. I divided the right internal rectus muscle, having previously separated, as completely as possible, all its cellular attachments to the globe; the immediate effects of which were, a slight abduction of the right eye beyond its natural central position, and a slight but decided improvement in the sight, the fog or mist being *less dense* in the direction of the *right external rectus*.

4. Sight very much improved—fog much lighter than it was soon after the operation; sees most distinctly towards the right external canthus: all objects appear clearer; can distinguish the tassel cord. Read, in the presence of myself and others, several sentences in large print: sees all objects double when both eyes are open.

8. H. states that she read, on the day after the operation, the large printed title of a child's book by means of the right eye, the left being closed. Position of the left eye natural; right very much abducted.

12. Sight considerably improved since the last report. Read, in the presence of several professional friends, the large print of a public journal. Position of the right eye much altered, and is now nearly natural; the patient says, that three days since it came straight suddenly.

16. Sight still more improved; read, in the presence of many gentlemen, a moderate sized print: still sees double.

The pains about the eye and brow have been, since the operation, much less; but she has had two or three attacks of general headache.

I now proceeded to divide the right external rectus muscle, carefully separating its cellular connexions.

The immediate effects of this second operation were to render the position of the right eye perfectly central and corresponding with the left, to remove the double vision, and to cause the sight to become perfect, in a direction towards the right inner canthus, as it had been, previous to operation, towards the right external canthus.

20. Sight more extensive since the second operation; can see with the right eye, as well towards the left hand as towards the right. Can see to read the ordinary newspaper print.

24. Sight in the right eye slightly improved since last report; cannot yet read with it very small print. With *both* eyes open can read the smallest print or do fine needle-work without pain, confusion of vision, or in fact any inconvenience.

Having thus described one of the most interesting cases of amaurosis or impaired vision that has ever fallen within my knowledge, and having proved beyond a doubt that the division of the two recti muscles has been speedily followed by a restoration of sight, and a cessation of a peculiar train of symptoms, I venture to assert that there are numerous cases of blindness, unconnected with strabismus, which, by the division and the separation of certain of the recti muscles from the eye-ball, may be relieved or cured.

After what has been stated, it is but natural to expect that I should offer an explanation of

the *modus operandi*, or at least point out by what peculiar symptoms the like cases may be distinguished, and thought fit for operation. The uncertainty of my explanation being the correct one, and the absence, as yet, of a sufficient number of cases to form a practical guide for the detection of others, must, for the present, be my excuse for not saying more on this subject at this time. However, I am not without the hope of being able, hereafter, to offer to the profession such facts as shall render the detection of the fit cases for operation both simple and easy.

I am, gentlemen, your obedient servant,

JAMES J. ADAMS.

27, New Broad Street, March 25, 1841.

CASE OF STRICTURE OF THE VAGINA.

BY J. TOOGOOD ESQ., BRIDGEWATER.

A WOMAN, about 40; who had borne children, and whose labours had been slow and lingering, but not dangerous, considered herself again pregnant about six months after she had given birth to a child. The catamenia had entirely ceased, and although she had no doubt of her situation, she was remarked not to increase in size. At this time she had some discharge, and suspected she was going to miscarry; but as nothing more than dark-coloured blood passed, and the pains became very severe, attended with shivering and considerable fever, she consulted a surgeon who had been accustomed to the practice of midwifery; this gentleman discovered, on examination, a circular contraction of the vagina, so complete as almost entirely to obliterate the canal, leaving an orifice scarcely large enough to admit the point of a probe, through which a dark-coloured and highly offensive fluid passed. The opening was gradually dilated, which allowed the escape of a very large quantity of putrid fluid, with immediate relief of all the symptoms. The stricture was now forcibly dilated for seventeen days, when she was pronounced cured. About two months after this period she fell under my care, when I found the contraction so great, that I could not insert the point of my finger into it without using much force, and occasioning considerable pain. Having succeeded in effectually dilating the female urethra by the introduction of sponge tent, without the slightest pain, in two cases in which a female catheter had accidentally slipped into the bladder, I determined to make trial of it in this case, and so easily effected it, that in the course of a few days the stricture was completely dilated, and the canal apparently restored to its natural state. Two days after the removal of the sponge, I had the mortification to find the contraction as great as ever, and believing that I had not kept up the dilatation long enough, I gradually introduced a very large piece of sponge, and allowed it to remain several days: but, on removing it, I again found that I had gained nothing. As my patient was unwilling to submit to severer treatment, and fancied that her recovery was only protracted, because the remedies had not been continued for a sufficient length of time, the same plan was persevered in for a month with no better success. The sponge tent was now introduced and removed with so much

* It may be well to state that nearly all the operations that I perform are done publicly, though at my residence, as I have long since permitted any medical gentleman to witness them without the necessity of an introduction.

ease, that she was in the habit of doing it herself, when, on one occasion, the string broke, and a very large piece of sponge was left in the upper part of the vagina, the stricture closing below it. Several ineffectual attempts were made to remove it. This was at length effected by introducing a smaller tent into the orifice of the stricture, which admitted the blades of a pair of stone forceps, with which it was grasped and brought away.

It was now evident that nothing but the actual division of the stricture, in many different places, and to a considerable extent, would succeed in obtaining a permanent cure. This practice was adopted, and a very large dilator made of cork, and covered with caoutchouc, introduced; but so great was the disposition of the parts to contract, even after the incisions which had been made so freely had healed, that it was necessary to wear the instrument for many months, before the cure could be pronounced to be complete.

I have had frequent opportunities of examining this patient. She remains quite well, and it is now four years since the operation was performed. I found it extremely difficult to get an effectual dilator—common rectum bougies, wax candles, and such means as are usually employed, were extremely inconvenient, and failed; but the dilator which Mr. Laurie made, under my direction, answered so well, that I should recommend it with confidence in all such cases.

A piece of cork about eight inches long, and of the size of a wax candle, was covered with caoutchouc, a strong silk ligature was passed through the upper end of the cork, brought down each side under the caoutchouc, and formed into a loop at the bottom. This was fastened to a napkin, and worn without interruption of exercise or the natural functions.

Bridgewater, March 22, 1841.

SENILE GANGRENE.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—The following case of senile gangrene came under my care while I was attending the poor of St. Lawrence's parish in this town in the year 1835. I do not know whether it is of sufficient interest to be inserted in your columns, but thinking it a case in point in relation to Mr. Bransby Cooper's valuable observations on this disease in your last number, I have ventured to obtrude it on your notice.

I remain
Your obedient servant,
F. A. BULLEY.

Reading, March 23, 1841.

John Pope, æt. 75, had been confined to his bed in the infirmary for nine months previous to the date of this report; during which period, his disease had gone through its different stages, and, at the time these notes were taken, presented the following appearances. The foot and tarsus of the left leg had been converted into a hard shrivelled insensible substance of a dark bronze colour. This sphacelated condition, involving

all the tissues, extended a short distance up the leg. The tendo Achillis was in a sloughy condition, and constituted, from its tenacious fibrous state, the only bond of connexion between the healthy and diseased portions of the soft parts. A distinct line of vivid healthy inflammation was observable between them. Just above this part, the internal flat surface of the tibia was exposed to the extent of about four inches, the periosteum being destroyed, and the shaft of the bone in a state of necrosis, but still in firm connexion with the healthy part. There was also an irregular ulcerated surface, above five inches long, over the fibula, covered with healthy granulations; this bone was not, however, exposed. He stated that his general health had always been good, and he seemed to be hearty and robust. The sounds of the heart were normal, and its action regular and equal. His appetite had never failed him. He had felt at times, after eating, sensations of darting or shooting from the knee downwards towards the affected parts.

He gave the following account of the commencement of his complaint. For some time before he became ill, he had had a bunion over the metatarsal joint of the great toe, which had been greatly inflamed and very painful, but this subsided without much inconvenience. He remained well until, after working in the cold and damp, he suddenly became affected with severe pain over the instep, when a small red spot was shortly afterwards perceived. From this spot inflammation quickly extended unchecked, until the whole foot became involved, and eventually was swelled to almost double its natural size. There was at this time considerable fever, and great constitutional disturbance. Shortly after this the pain subsided, a gangrenous condition of the affected parts supervened, and the line of its future separation became defined. At this time the febrile symptoms left him, and he soon recovered his usual health.

May 6. A month after I had commenced my attendance. The foot, with nearly the lower thirds of the tibia and fibula, has become separated, adherent only by the tendo Achillis, which I divided with the scissors. He has continued in good health since the occurrence of the gangrene, but suffers at times from a harassing cough, to which he had at intervals been previously subject.

8. The exposed surface of the tibia above the separated part has become blackened, and two or three pieces of dead bone have exfoliated from the bottom of the stump. Complaints of severe pain below the knee. A few days ago the other leg and foot became oedematous and painful, but means having been used to arrest the inflammation, no ill effects have followed. The integuments over the upper part of the tibia of the affected leg are beginning to ulcerate, the redness extending a considerable distance towards the knee.

10. The now exposed and blackened surface of the tibia has exfoliated, and a piece of the outer lamella, of about an inch in length, has been thrown off.

12. Healthy florid granulations have covered the exposed surface of the bone, excepting just at the lower part, where it appears dark, and

emits a foetid sanious discharge; at the very bottom of the stump there are several sharp spiculae of bone, apparently of recent production. His general health is now pretty good.

Some time after these notes were taken, I found that the sharp spicular projections at the end of the stump had exfoliated, and that firm cicatrices had formed over it, giving it as nearly as possible the appearance of having been removed by an operation. He occasionally felt uneasy sensations, which he referred to the foot which had been lost, but was otherwise in perfect health.

I had no reason to believe that the gangrene in this case was otherwise than the result of severe acute inflammation, produced by exposure to extreme cold. On the contrary, it seemed, as far as I could see, to have occurred quite independently of any ossific change in the arterial trunks of the affected limb. Had it ensued from this diathesis, he would probably have previously had some marked symptoms denoting this state, as deficient circulation and ulceration in the part, and other indicative signs. But this not being the case, it is fair to infer, that had the patient, in spite of his great age, been within the reach of efficient medical assistance at the time of his attack, the inflammation might have been subdued, and he might probably have escaped the mutilating effects of his disease.

CASE OF SUBCUTANEOUS DIVISION

OF THE

PRONATOR AND FLEXOR MUSCLES OF THE HAND AND FINGERS.

BY P. DOUBOVITSKI,

*Professor of Surgery to the Imperial Academy of St. Petersburg.**

On the 3rd of January, 1839, while removing a book from one of the shelves of my library, I fell from the ladder, and struck my left elbow with violence against one of its steps. The effects of this accident were transverse fracture of the lower end of the humerus in the articulation, and vertical fracture of the internal condyle, which was retained in its place merely by the ligaments attached to it. Two hours after the accident, the immovable starch bandage was applied from the wrist up to the shoulder. The consequences were, that all sensation was soon lost in the parts below the wrist, which became swollen and painful. To remedy this, a firm bandage was rolled over the fingers and wrist; but the pain, tumefaction, and loss of feeling increased; the starch bandage was not removed until the 25th day. The fractured bones were now completely and firmly united, but the elbow-joint was so stiff, that even strong efforts made by another person could with difficulty produce very slight trace of motion in it. The flexor muscles of the thumb and fingers were indurated to such a degree, that the muscular structure, with their tendons and adjoining cellular tissue, formed a hard cartilaginous mass, in which no one part could be distinguished; even the skin could not be pinched up

from the indurated parts beneath. Several ulcers existed on the arm and wrist; the wrist and fingers were completely paralyzed, with total absence of sensibility and motion. The parts just mentioned were straight; the wrist could be flexed on the fore-arm a little, but complete extension was impossible; the fingers were quite stiff, and without movement.

During three months various means were employed to remove the indurated condition of the fore-arm and the paralysis; at the end of that time the induration began to give way, and as it gradually disappeared, I recovered a portion of sensibility and movement in my wrists and fingers. The hardness has now almost completely disappeared, but as the muscles became relieved, instead of retaining their normal action, they began to retract, even while their tendons were still involved in the indurated mass. The flexor ulnaris first retracted, then the two palmæres, then the pronator teres, and finally the flexor muscles of the fingers.

This fresh complication of my disease was combated by every means known to surgeons. I travelled through France, Germany, and England, and had the advice of the most celebrated men in each country. They were divided in opinion: some, as MM. Rust, Walther of Munich, Sir Astley Cooper, and Mr. Guthrie, rejected any suggestion for relieving my disease by division of the tendons; they regarded the effects of the accident as being incurable. Others, again, as Guérin, Dieffenbach, Graeffe, Ammon, Roux, Velpeau, Amussat, Blandin, &c., proposed division of the tendons as the only means of removing the infirmity under which I laboured. But I was unwilling to have recourse to operation before every other means had been employed and failed.

For four months I followed the practice of M. Guérin at the Children's Hospital, and I saw that distinguished surgeon perform the operation of dividing muscles and their tendons in hundreds of cases with astonishing success. Encouraged by what I there saw, I applied to M. Guérin, who undertook my case, and held out some hope of being able to restore the movements of my hand. The following is an exact account of my state when M. Guérin took me under his care. The movements of the elbow-joint were pretty free, but still limited by the callus; all the muscles of the fore-arm were capable of being contracted, but all the flexor muscles of the wrists and fingers were in a state of permanent retraction. The shortening was evidently seen in the flexor ulnaris, pronator teres, flexor sublimis, and flexor pollicis longus; but we could only suspect from analogy that the deep flexor was also retracted. The retraction of the different muscles produced an extreme and permanent degree of pronation, with flexion of the wrist, thumb, and second and third phalanges of the fingers. The wrist-joint seemed to be free, as also the articulations of the fingers; but the articulations of the first phalanges with the metacarpal bones were extremely stiff; and the fourth and fifth fingers presented an appearance of incomplete luxation, produced by the action of the extensor muscles. It was impossible to catch any object with the fingers, but when once placed between them and the palm it could be grasped, showing that the muscles were not paralysed. The deformity of the hand was very unsightly, but sensation existed in every point, except in the two

* We have condensed this interesting memoir from the last number of M. Velpeau's *Annals of Surgery*.

last phalanges of the index finger. M. Guérin having first removed all trace of paralysis by the use of friction, moxas, &c., proceeded to operate in the following manner on the 21st July, 1840, in the presence of MM. Amussat, Mott, Donné, Clot-Bey, and several other distinguished medical men. He divided the heads of the pronator teres, palmares, superficial flexor and ulnar flexor, near the elbow-joint; in the fore-arm he divided the four tendons of the flexor sublimis, the tendons of the flexor proprius pollicis, of the flexor ulnaris, and of the palmares; finally, he divided the adductor pollicis in the palm of the hand, and the four tendons of the flexor profundus. The object of dividing the same muscles in different places was to avoid the great separation which might take place between the divided portions, if only one point of the muscle was cut through. The nineteen sections were executed in half an hour with the utmost dexterity, and without the slightest accident.

The immediate result of the operation was as follows: the hand was moved more freely on the wrist, and was less flexed; the thumb also was free, and completely restored to its natural position; the tips of the fingers had recovered their natural position, but the second phalanges remained flexed on the first, as before. Simple dressings were applied, and great care was taken to exclude all air from the wound. I felt no pain after the first hour and a half which followed the operation; there was no trace of reaction, nor any accident whatever.

On the 23rd of July, the dressings were removed; all the little wounds were healed up. M. Guérin now endeavoured to move the limb in various directions, and found that the abductor pollicis was strongly retracted, a little above the wrist-joint; he therefore divided the tendon at once. It was impossible to extend the second phalanges of the fingers. An apparatus was now applied; it is unnecessary for us to give a minute description of it; suffice it to say, that it was intended to extend the fore-arm on the arm, the hand on the fore-arm, and to effect supination. As all the joints were very stiff, the use of this instrument caused severe pain, and M. Guérin being convinced that it was next to impossible to extend the second phalanges on the first, decided on cutting the four tendons of the flexor sublimis at the level of the first phalanges. This he did on the 27th June, and in three days the wounds were healed; the machine was now reapplied after a short interval, and its action assisted by baths, frictions with camphorated oil, &c. By these means the natural shape and position of the fingers were restored. As to the motions of the elbow-joint, it was soon found that they could not be improved, from the osseous mass which projected into the articulation.

The flexion of the hand on the fore-arm was extremely difficult to overcome. Every means were employed with little success up to the 22d August, when M. Guérin divided the palmares and the flexor ulnaris in the fore-arm. The wounds healed rapidly, as usual; I was not compelled to remain in my room even for a single day. This new operation gave me great relief, and in a short time I could, by mere muscular effort, bring the hand to a right line with the fore-arm.

On the 1st of December M. Guérin performed the twenty-ninth operation, by dividing the extensor tendon of the little finger opposite the

metacarpo-phalangeal joint; and on the 25th January, 1841, he completed his long and arduous task by dividing the opponens pollicis: this was his twenty-ninth operation.

In order to complete the history of my cure, I must now describe the condition of my hand after all these operations, and point out the exact amount of benefit which I have derived from them.

The movements of the elbow-joint have been but little improved: the reason of this has already been stated. Before the operation, the hand was constantly in a state of pronation; supination was impossible; now I can effect a certain degree of supination by mere muscular effort, and with a little assistance, a much greater degree; still, however, complete supination cannot be attained. The extension of the hand on the fore-arm has been very considerably improved; I can carry it not only in a straight line with the arm, but even a little backwards, and this is of great importance. As to flexion and lateral motion, they are just as perfect as in the normal state. The thumb is quite straight, but I cannot bend the second phalanx. The metacarpal joint of the index finger is pretty free, but the power of flexion depending on the superficial and deep flexors is completely lost; the metacarpal joint of the middle finger, also, is free, but I cannot bend it voluntarily. The same joint of the index finger is very stiff, but it will, probably, become free in time.

The superficial flexor tendon, divided at the level of the first phalanx, has united, and there is slight power of flexion, but the deep flexor does not seem to have united in the same way.

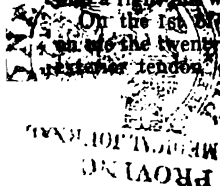
There is no motion whatever in the fifth metacarpal joint, but the phalanges are very free and easily moved.

To conclude, it results from the above observation, that out of twenty-nine sections of tendons, reunion has not taken place in seven; viz. in the four deep flexors, near the phalanges; in the superficial flexors of the index and middle fingers, near the same parts; in the proper flexor of the thumb. Hence the action of these different muscles has been completely lost. As to the ultimate results of the operation, I may state; 1st, That the diseased condition of the nerves and muscles, which produced contraction and paralysis, is cured; 2nd, The deformity of the hand has almost completely disappeared; 3rd, The movements of the elbow-joint, and extension and flexion of the wrist-joint, have been very evidently improved, and we have every reason to hope that time will augment the degree of improvement; 4th, But as regards the movements of the fingers, I shall think myself very happy if, after a considerable lapse of time and much exercise, I shall be able to flex the metacarpo-phalangeal joints a little more, so as to bring the tip of the thumb to the other fingers, and thus seize objects between them; for at present the action of the deep and superficial flexors is completely lost.

EXPERIMENTS IN THE REVACCINATION OF CHILDREN WITH NEW VIRUS.

BY T. S. KIRKBRIDE, M.D. OF PHILADELPHIA.

SMALL-POX and varioloid disease having been unusually prevalent in this city and its suburbs,



during the past spring, I was induced, while attending two of our public charities, to revaccinate the inmates of those institutions.

The number subjected to the experiment is much smaller than I could have desired: still the results may not be void of interest. Two hundred and nine children were revaccinated, upon some part of whose limbs a perfectly formed, rounded, stellated, or punctated cicatrix was found. All others, upon whom this indication of previous vaccination was not discovered, are excluded from this report.

Of the total number, one hundred and thirty-four were boys, and seventy-five were girls: and the average ages about twelve years, the extremes being six, and twenty. The virus used was eighteen and nineteen removes from the cow, being derived from that forwarded by Mr. Estlin and Dr. Carpenter, of Bristol, England, to Professor Dunglison, of this city, near the end of 1838, and from which source of supply a large number have been vaccinated by the vaccine physicians and private practitioners of Philadelphia. The dry scab was employed in every instance. A portion of it being softened to the proper consistence, was placed upon the raw cutis, which had been exposed to a small extent, by abrasion of the cuticle with a dull and round pointed lancet; a few crosses with the same instrument, but rarely sufficient to produce a drop of blood, completing the operation; a plan, which, in primary vaccination, we have rarely found to fail. These scabs were taken from the arms of healthy children under one year, except a small portion from an individual thirteen years of age.

Of the two hundred and nine children with perfect cicatrices, forty-four, or rather more than twenty-one per cent., had the disease perfectly—presenting precisely the same characteristics which I have observed from the use of the new virus in primary vaccination. The proportion of successful cases did not differ in the two sexes. It is also proper to remark that in several cases there were vesicles upon the arm which ran an irregular course, i. e. there was slight phlegmonous inflammation—but all such are rejected from the report.

Three of the cases had sloughing of the arm, which left ulcers that were several weeks in healing. Of these three, one was in bad, the others in perfect health.

Although some members of the profession appear disposed to reject the new virus, from the severity of the symptoms which it induces; yet, except in the three cases just referred to, we have never seen sloughing, or other unpleasant effects. It does certainly produce more decided symptoms than the virus which has been in general use for years past; it is slower in its progress to maturity; the inflammation is generally greater, with more constitutional disturbance; the scab is much later in falling off, and adheres strongly in its central point—conforming, in a great measure, to the first observations made by Dr. Bridges, of this city. My own observations induce me to put more confidence in its prophylactic powers than in the old virus, although this point can only be settled by time, and an enlarged experience by the profession generally.

To test the virus obtained from revaccination,

I used part of a scab in about twenty of the cases embraced in this report, and subsequently in children who had never had the vaccine disease, and with the same success as from crusts derived from primary vaccination. It was this scab that was alluded to in a previous part of the paper as having been derived from an individual thirteen years of age.

The recent lymph so generally adopted for vaccination in Great Britain, and on the Continent, is here rarely used; while the dry scab, which is spoken of in some reports on revaccination as nearly always failing, is, we believe, in this country almost universally employed.

In none of my cases, was more than one vesicle observed in those subjected to revaccination.

Two or three took the vaccine who were said to have had small pox in infancy; but from the character of the children given in a previous note, there may be some doubt on this point. Of ten thoroughly scarred from that disease, no one was affected by the vaccination. In five children who had no cicatrices, and who had been several times vaccinated unsuccessfully with the old virus, there was no appearance of a vesicle.

My friend, Dr. Pepper, assisted me in a number of the cases at the Refuge, and observed the results in all.

I regret that other engagements prevented my repeating the experiment in those cases that failed in the first instance.—*American Journal of Medical Sciences.*

Philadelphia, October 7th, 1840.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, APRIL 3, 1841.

It will not, perhaps, be deemed out of place if, in commencing another volume, we take occasion to review the progress made in various subjects of interest connected with the objects of our publication. Of those which have especially required and received attention, the public relations of the Medical Profession necessarily stand foremost. To advocate, and, as far as we had the power, to promote the settlement, upon equitable grounds, of the questions relating to the organization of the Medical Profession, has been our earnest wish; and though many circumstances have conspired to delay the immediate settlement of these questions, we have the gratification of perceiving that the discussion which they have received has tended much toward the spread of just ideas. Many of those, who were before indifferent, have become alive to the importance of securing a fitting constitution to the profession, and more effective protection to its individual members. Information respecting the actual grievances complained of has been more generally diffused, the evils resulting

to the public have been pointed out, and the necessity of some remedy is at length on all hands admitted. The just remonstrances of the profession at large have also reached the ear of those in authority, and a disposition has been manifested in various quarters, more especially in the London and Edinburgh Colleges of Physicians, in the Edinburgh College of Surgeons, and in the University of Oxford, to listen to these remonstrances and, severally, to promote the adoption of certain measures, professedly intended for the removal of the evils complained of. Much difference of opinion, as it is natural to expect, exists as to the nature and extent of the changes which it may be requisite to introduce. The different circumstances in which individuals are placed, the varying constitution of different minds, the bias of prejudice or self-interest on the one hand, the sense of long-continued and unjust neglect on the other, the prospect of personal advancement or private gain, the mere wish for change, are all influential in warping the judgment even of those who are desirous of bringing about an equitable arrangement. The difficulties are also further increased by an imperfect conception of the objects required, and by the numerous vested interests, privileges, and rights of influential parties concerned. Were the matter to be arranged *de novo*, were it simply a question of giving a constitution to the Medical Profession, there would be less difficulty in coming to some general arrangement. Such, however, is not the case; and it remains, therefore, the evils having been admitted, to devise the best method of remedying them, which the conflicting circumstances of the actual state of the Medical Profession and of public feeling allow of. It is not our intention here to discuss the nature of the measures which may be necessary. We have from the commencement carefully abstained from putting forth any specific plans of our own, although we have felt it right, from time to time, as occasion seemed to require, to enforce the adoption of certain general principles, on which any measure, to prove satisfactory, must be based, and have freely animadverted upon the defects or unfitness of those measures which have been already proposed. We believe that in the pursuit of this line of conduct much good has been effected, both in informing the minds of those who were previously in ignorance, and in repressing the crude and impracticable speculations which were at one time entertained. A great impediment, under which the Medical Profession labours, and is likely to labour, in the final settlement of this question, is the want of knowledge of the actual working of the existing state of things on the part of non-professional persons, and the

consequent inability under which the members of the legislature labour of understanding what is the nature of the enactments necessary to amend and improve the whole system of medical polity. Even those who are best acquainted with the subject, have proved themselves altogether incompetent to grapple with its details, whether with reference to the public benefit, or to the redress of professional grievances. The thanks of the Medical Profession are no doubt due both to Mr. Warburton and to Mr. Hawes for their intentions, as well as for the time devoted by those gentlemen to this question; but we cannot but think that while they recognise the principle of levying an annual tax on qualified medical practitioners, no matter for what object, and at the same time leave them altogether without protection against the unqualified, the direct tendency of their measures is to perpetuate one of the most pressing evils, as regards the profession and the public, and to degrade the really qualified practitioner by holding out inducements to him to irregular practices. Educate yourself or not as you think fit, but so long as you abstain from taking out a legal qualification for practice, so long shall you be exempt from the payment of the annual tax. Such, we maintain, is the tendency of the late measures proposed, and we cannot but think that the delegates of the British and Irish Associations should have pressed their opinion upon this point more strongly in opposition to the views of Mr. Warburton. We are aware of the untoward position in which these gentlemen were placed—that they were, in common parlance, admitted only to the privilege of Hobson's choice; yet we think they would have occupied higher ground, had they at once disclaimed the bill, so drawn up, as *their own measure*. The question as to the particular constitution which may be sought by, or conferred upon, the whole or any part of the Medical Profession, is likely to be regarded by the unprofessional part of the community, and, consequently, by the House of Commons, as purely speculative; and the more this interferes with existing rights and privileges, or departs from the regulations of recognized bodies, the less likely is it to meet with a favourable regard. But the forcible statement of an actual grievance endured by a large and influential body of men, and of manifest injury at the same time resulting to the public therefrom, is likely to meet with attention, and ultimately to obtain redress. The prominent object, therefore, of any future measure should be the redress of palpable grievances, the remedying of manifest injuries, such as are open to the comprehension of every enlightened individual. The proposed bill should bear this on its title, should

state it fully in its preamble, and in the subsequent clauses the legislature might be led to enter into the consideration of giving to the profession such a constitution as should be fitted to afford that equitable protection which they have a claim to, together with such equal corporate rights as their standing as a body of highly educated and intelligent gentlemen entitles them to possess. Such, we conceive, should be the general principle by which medical reformers should be guided in their attempts to obtain legislative sanction to the proposed measures of reform. At present the great body of medical practitioners, notwithstanding that many of them are members of various associations, are banded together by no general ties. They are individually suffering under the pressure of various evils, and each one feels more or less deeply those to which he is personally exposed. The immediate effect thus produced is to exaggerate the importance of some, and to keep others altogether out of sight. With regard, therefore, to the remedies, there must be a corresponding difference of opinion. In the metropolis, where the exclusive system pursued by the corporations has long been more especially felt, the partial and inequitable proceedings of these bodies has raised up a spirit of opposition to them, under which, unless they are prepared to carry out a speedy and thorough purgation of their bye-laws, and to adopt a system of a totally different character to that which they have hitherto pursued, they must ultimately sink. In the provinces, the Colleges of Physicians and Surgeons are looked upon rather in the light of scientific institutions, respected indeed on account of the many eminent individuals who are and have been enrolled amongst their members, but, regarded as integrant parts of the medical commonwealth, possessed of no influence whatever. The Apothecaries' Company has made itself more generally conspicuous in its corporate capacity. It has had the power of doing so. But in almost every instance in which that power has been exercised it has been against the qualified practitioner, while rarely, if ever, has it been exerted for the protection of the public, or the profession, against the arts of the declared empiric, or the practices of the ignorant pretender. The encroachments of unqualified persons upon the province of the medical practitioner, the tyranny and insolence of the Poor Law authorities, and the like, are the evils most felt by the mass of the profession scattered throughout the provinces. At present, as we have said, there is little union amongst them, but information is daily gaining ground; and unless a full, an equitable, and a satisfactory measure of reform, undertaken with the sincere desire to

remedy, as far as practicable, all the grievances of the medical profession, and founded upon liberal principles, is speedily produced, we warn all those whom it may concern, that a power will be raised up, against which they will struggle in vain, and to which they will finally be compelled to submit. We look now anxiously for the measure which the corporations stand pledged to introduce. We hope, for their own sake, and, above all, for the peace of the profession, that this measure will be such as we can conscientiously support, that its provisions will afford evidence of a spirit directly the reverse of that which has dictated the former corporate acts of the colleges and halls, and be framed with due regard to the just expectations and requirements of an enlightened and intelligent community. It is no unreasonable concession that any one of these institutions is called upon to make, when they are severally required to admit to an equal participation in their rights and privileges of their respective corporations all those who are possessed of the same recognized qualifications. It is no unreasonable expectation that the governing body or bodies, where all the members are equal, should be elected by and responsible to the members at large, while the claim for protection at the hands of those in authority is equitable and just.

We agree in the main, though with some reservation, with the sentiments expressed by the College of Physicians in the petition presented to the House of Commons, in February last, by Sir Frederick Pollock, "That the division of the Medical Profession into the several departments of the physician, the surgeon, and the apothecary, has been created by the public itself, and will continue to exist, notwithstanding any attempt which may be made to unite the functions of the three in one; that a course of study and a test of competency adapted to each particular branch of the profession, afford a much surer guarantee for a high standard of qualification in the practitioner, than can be obtained by a course of study and examination common to all; that the abolition of all distinction of rank in the medical profession would tend to degrade the profession in the eyes of the public, and diminish its usefulness by removing the stimulus of exertion, which at present exists, in the legitimate ambition of 'rising from the lower to the higher grade;' but we do not admit "that the provisions of the bill which vest the election of the members of the council in a constituency of probably not less than 15,000 persons, would have the effect of excluding from the council men of eminence in the profession;" and we cannot think, that as at present constituted, "the existing medical institutions of this country are fully adequate to the performance of the duty of superintending the education and examination of candidates for the medical profession." Moreover, we think that the attempt on the part of the College of Physicians to mystify the House of Commons as to the nature of the real demands of

the profession, is altogether unworthy of them, while some of their sentiments are at variance with the resolutions which have already emanated from their Reform Committee, and to which the Fellows are understood to have yielded their assent. Such vacillating proceedings afford just grounds to the profession to distrust their sincerity in carrying out the measures to which they stand pledged. The College of Physicians know full well, that whatever may be the reasons for or against the union of all classes of the Medical Profession into one body for corporate privileges, the question is in itself perfectly distinct from that of the existence of grades; the endeavour, therefore, to mix up the two questions in their petition, and the bringing of this question of grades prominently forward as an objection to reform measures, in which it is not necessarily concerned, is uncandid, and can be considered only in the light of an attempt to take an unfair advantage of the ignorance of those who, although they may have to legislate on the subject, are necessarily but little qualified to understand its merits. The Fellows of the College have an undoubted right to form their own opinion. From the position in which they are placed, that opinion may be naturally expected to be biassed and partial, and we are not disposed to blame them for this. It is in the natural course of events, and we expect not that every man should be able to view correctly things as they are, through the same medium. But we do expect candour and upright dealing from a body of gentlemen, who especially profess high moral and intellectual attainments, whose acts of exclusion have, indeed, been attempted to be justified on the presumed possession, in an eminent degree, of these very attainments by the persons admitted to a participation of their privileges. We feel, therefore, the more disappointed at the tone of their petition, and our confidence shaken in the promises made by them of the adoption of measures which, if not unexceptionable, are nevertheless, in the main, such as might be received by the profession without degradation. A more recent petition, which we inserted in our last number, we regret to say, holds out but little inducement for a renewal of confidence, and we are induced to defer the expression of our opinion in more decided terms, only in the expectation that the bill of the Corporations will shortly be before us.

HARVEIAN SOCIETY.

ON THE TREATMENT OF STAMMER BY SURGICAL OPERATION.

BY P. BENNETT LUCAS, ESQ.

Surgeon to the Metropolitan Free Hospital, Lecturer on Surgery at the Hunterian School of Medicine, &c.

To understand the nature of the defect to which the popular terms stammer or stutter have been

applied, it is evident that a most serious consideration of the structure, connexions, and uses of the several organs directly or remotely concerned in the pronunciation of words is necessary. At the present moment this investigation is particularly called for, on account of surgery, in its operative department, essaying for the first time to cure or alleviate a distressing infirmity, which has in too many instances hitherto baffled the best-directed energies of the other departments of medical science; and, as a necessary result, has left uncultivated an extensive field, in which, as is ever the case, the empiric has not been slow to exhibit himself as an apparently scientific and assiduous labourer.

In approaching a subject of this kind I almost pause at its very threshold, in consequence of the complexity of the system of organs which are engaged in the pronunciation of words, a defect in any one of which it is rational to suppose must be accompanied with some defect in speech; and I more especially do so, when I reflect that some eminent members of our profession have already directed their attention to the nature of the defect under consideration; but who, having based a practice upon views confined to a portion only of the complicated apparatus for speech, have necessarily promulgated opinions which have been as imperfect as the practice which they have recommended has been found wanting.

Another source of difficulty in properly investigating the subject of stammer presents itself in the novelty which obtains to the new endeavour to cure or relieve it by surgical operation; and which already promises to raise as large a host of unreflecting tongue cutters, and tonsil excisors, as the interesting operation which immediately preceded it did squint cutters. The history of the new operation for strabismus is pregnant with proofs of the truth of these remarks, and offers a salutary lesson, of an otherwise useful operation being likely to get into disrepute, from a desire of display in its performance on the one hand, or an anxiety to exceed in the amount of cases on the other. It is a striking coincidence that two organs so distinctly opposite in their functions, as the eye and the tongue, should have lately been the subjects of operation for the relief of vices not directly connected with the essential function of either. In one, the muscles have been divided to remove rather a personal deformity than to improve vision; in the other the muscles have been divided to remove a defect in utterance, and not to interfere with the sense of taste. Whilst the most gratifying success has attended, in almost every case of strabismus, the judicious division of the muscle or muscles at fault, it is very doubtful if the division of the lingual muscles will accomplish effects so decided; and it is certain that such an operation cannot have so extensive an application to the muscles of the tongue as to those of the eye. The muscles which move the human eyes are so perfectly distinct from each other, that even their dimensions as to length, breadth, and thickness have been ascertained;* hence the certainty with which the surgeon can remove the eye-balls from the influence of them by operation. But the muscles which move the tongue, although the majority

* Vide "A Treatise on Strabismus, by P. Bennett Lucas," pp. 19-21.

of them are distinct enough at their origins, and, for part of their course, become at length so intermingled with each other, and with the other tissues of the tongue, that they defy the labour of the anatomist to display their individual continuity; and even could dissection satisfy curiosity on this head, it is even doubtful if any practical utility in the treatment of stammer would be the result.

It would obviously be impossible, in a short paper of this kind, to enter into an investigation of the organs concerned in speech, much less to give a detail of the different opinions which have been advanced, from time to time, on the nature and seat of stammer; and even had I prepared such, I should only have recapitulated a description of organs with which, doubtless, all the members of this society are familiar, and have collected a history of opinions, equally well known, from sources accessible to all.

I shall, therefore, confine my observations to an account of a few operations which I have lately performed on some of the muscles of the tongue with a view to the relief or cure of stammer; and to other operations which have been performed with similar objects. The first intimation I had of the cure of stutter by operation was from a newspaper, in which it was stated that Professor Dieffenbach had divided some of the muscles of the tongue with the most brilliant success. On February 23d an opportunity was afforded me, in the case of Patrick Heron, of putting into practice, by operation, some views which the newspaper account alluded to led me to adopt for the cure of stammer. This operation had for its object the division, and partly removal, of those muscles which oppose the free elevation of the tip of the tongue to the superior alveolar arches.

Besides six cases which have already been laid before the profession in the pages of the *PROVINCIAL MEDICAL AND SURGICAL JOURNAL*, I have operated precisely in the same manner upon twelve others; and I should be wanting in respect to myself, and in candour to the members of my profession, did I not explicitly state that four of the latter were not in any way benefited by the operation. Of the remaining eight, three were cured and five considerably relieved.

The following case, taken from my note-book, upon which I operated this week, is a good example of the beneficial effects of the proceeding:—Mr. Mosely, aged 22, has stammered since he can recollect. This case is an excellent one to try the operation; his palate is narrow and very deep; when his mouth is open, he cannot elevate his tongue more than half way to the superior alveoli; his *frænum linguæ* is very tense when he attempts this movement. The only words he stammers at are those which require the tip of the tongue to be applied to the upper alveoli. His engagements make him anxious to pronounce distinctly the price of articles of merchandize; and he tests the intensity of his infirmity by the expressions, *nine and nine-pence, nine and ten-pence, ten and nine-pence, &c.*

Thinking that the *frænum linguæ* might have been the impediment to his utterance, I divided it freely, but with no good effect; I next divided and excised portions of the *genio-glossi* muscles, and his ability to pronounce correctly his wished-for expressions became at once apparent to those present, as well as to the patient himself.

Four days after the operation I saw this patient. His ability to pronounce words containing the letters *t, l, d, n, &c.*, remains without any impediment. He expresses himself as perfectly satisfied with the results of the operation.

Three weeks after the operation on Patrick Heron, his stammer remains greatly relieved; he occasionally stammers at his old words, but only for two or three seconds. This man was a patient at the hospital for chronic enlargement of his right testicle four months ago, and he found the greatest difficulty in expressing himself; hesitating at times so long that I had repeatedly to send him away without his being able to make himself understood, and speak to him when I had seen the other patients.

In addition to my own cases, operations performed by Amussat, Velpeau, and Boyer, have been conducted in the same manner, and with similar results. Roux, also, is so satisfied of the soundness of such an operation, when applied to proper cases, that he announced his intention of performing it at the *Hôtel-Dieu*, but as yet no account has been afforded of the results of his practice.

One recommendation which this operation offers is its *extreme simplicity*; another, *the obvious views* on which it is based; and, above all, that the *life* of the patient is not hazarded by its performance. The operation which I perform is as follows:—The patient being seated before a strong light, and his head resting against the breast of an assistant, I make him open his mouth fully, and elevate his tongue, which movement puts the *frænum linguæ* upon the stretch. In most instances the patient can keep his tongue for a sufficient time in this position to enable the operator to accomplish the object intended; but if he should not be able to do so—if the tongue be unsteady, as it sometimes is,—the assistant who supports the head can readily keep the organ elevated and steady with his fingers, having first covered them with a napkin. I next seize the *frænum* with a common dissecting forceps, held in my left hand, and with a pair of sharp-pointed scissors I divide this membrane across, and also the mucous membrane laterally and vertically. After this is accomplished, the borders of the *genio-hyoglossi* muscles, often without any more dissecting, are brought into view; but in other instances it has occurred that a fascia and cellular tissue intervened between them and the *frænum*, so as to render this part of the operation more difficult, not only on account of the other parts which require to be divided, but also on account of the depth of the muscles from the surface. At this part of the operation there is often hæmorrhage from some of the sub-lingual veins being divided, but never more than to the amount of a small spoonful, and the flow of saliva also from the Whartonian ducts is considerable. At other times there have not been more than a few drops of blood. If the hæmorrhage should obscure the further steps of the operation, the patient should wash his mouth with cold water two or three times, when it soon ceases. When the free borders of the muscles are brought into view, I seize them with the same forceps that was used for grasping the *frænum*, and I cut a triangular portion out of each with the sharp-pointed scissors. The reason I prefer the latter to be sharp-pointed is, that I am enabled to see better what I am about. The

quantity of muscle I remove depends upon circumstances. After having removed the quantity apparently necessary for the free and perfect elevation of the tongue, I place the point of my forefinger in the wound, and if any parts become tense when the tongue is being raised, I free the organ from their influence. The proximity of the ranine arteries, the large sub-lingual veins, and considerable branches of the sub-lingual and gustatory nerves, makes it necessary to observe caution in the excision of the muscles. The only evidence of injury done to any of these parts in the operations I have performed was a tingling pain shooting from the seat of the operation to the base of one, and sometimes to those of both. This sensation, however, subsided in a few minutes. In a few days the wound is completely healed, and in general no trace of the *frænum linguae* is left.

It was not until the operation of dividing and excising the *genio-hyoglossi* muscles had been performed in this country, and I believe also in Paris, that the particulars of the newspaper account of the cure of stammering by Professor Dieffenbach was made public. And a translation of Professor Dieffenbach's proceedings, the revision of which was submitted to the learned professor himself, has been since made by Mr. Joseph Travers, and published by Mr. Highley; and another translation of the memoir on the subject, sent to the Institute of France by Professor Dieffenbach, has also appeared in the *PROVINCIAL MEDICAL AND SURGICAL JOURNAL*. The object of Professor Dieffenbach's operation he states to be the interruption of the stream of nervous influence, either forwards or backwards, in one of the muscular structures implicated in stutter; and to effect this he determined to perform a division of the root of the tongue in various ways, and under several modifications, always, however, adhering to the general principle, *of all but total division*, as from the interruption thus given to the morbid nervous influence he could alone hope for a favourable result.

Professor Dieffenbach states that he has given trial to three methods of operating, all of which have for their object total division of the root of tongue. These three operations, according to the translation of Mr. Travers, revised by Dieffenbach, are—

1. The transverse horizontal division of the root of the tongue.

2. The sub-cutaneous transverse division, in which the mucous covering of the tongue is left inviolate.

3. The horizontal division, with excision of a wedge-shaped portion.

These three operations evidently accomplish the object for which they were intended; and notwithstanding "the simple division of the root of the tongue" failed, "the sub-cutaneous division of the root of the tongue" only "ameliorated" a high degree of stuttering, and "was not fully satisfactory;" but "the horizontal division, with excision of a wedge-shaped portion," was attended with such "brilliant success" that Professor Dieffenbach "had the honour to present him to his excellency the Baron Humboldt, who testified the liveliest interest in the happy re-establishment of the boy."

I apprehend that few surgeons who read the

history of this latter case will not subscribe to the reflection of Professor Dieffenbach, viz. "Here some shortening of the tongue must necessarily ensue; and, forasmuch as the base of the wedge-shaped slice is made from the dorsum of the tongue, *elevation of the tip must take place*. This method, then, mechanically assists that organ, the position insisted upon by those teachers who have been most successful in ameliorating this defect."

The cases which Professor Dieffenbach relates as having operated upon were certainly of an extreme and painful nature, and should cases present themselves in which the individuals were burdens to themselves and to society, I should not hesitate to perform the operation approved of by Professor Dieffenbach, upon the authority of that talented and ingenious individual. But I confess that it would require most serious reflection on my own part, and the judgment of others, whose contributions to surgery as a science, or whose tried public characters as practitioners, rendered them worthy of confidence, before deciding upon the propriety of adopting an operation—not so severe from the nature of its execution, as likely to be followed by ill consequences to the patient.

I have only in one instance removed the tonsils and a portion of the uvula in a stammerer, and in another the entire uvula, but without the least good effect. I regretted afterwards having performed these operations, not from any ill effect which followed, but being satisfied before doing so that this was not the quarter to look for the cause of the affection; did enlarged tonsils or relaxed uvula, or the three, give rise to stutter, this defect would be very common indeed, for not only do we meet with in our daily practice innumerable patients with enlarged tonsils or uvulae, *telling us without the least impediment of the nature of their affection*; but in all the cases where these parts suffer from acute inflammation, we should naturally expect stammer to be a most prominent symptom.

I have purposely omitted mentioning until now the opinion of Dr. Arnot and many others, that the immediate cause of stammering is a spasmodic affection of the glottis, by which an arrest of the passage of the air necessary to pronunciation takes place. Investigations which I have lately made on patients incline me to think that too much weight has been attached to this opinion. I have first examined persons who did not stammer, and found they could pronounce words distinctly during inspiration as well as expiration; and examining stutters by the same test, I found their impediment equally affected. The tongue, the palate, the cheeks, the lips, the teeth, and their alveoli, and their different connecting media, appear to me to be the organs to look for the seat of stammer, the lungs, air-tube, thorax, and respiratory muscles, being subservient to them in speech.

In many of the cases of stutter in which I operated, indeed I may say in all, the patients were more or less relieved; but in those cases which did not remain permanently relieved, including those in which I excised the tonsils and uvulae, I attribute the momentary benefit to the effect of an operation upon the nervous system of the individuals. And this fact should make the public guarded against exhibitions got up for the display of professional dexterity, and the profession wait

for some months the results of such charlatanism, before sanctioning by its authority one operation or another, or indeed any operation at all. *Magna est veritas, et praevaleret.*

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 28, 1841.

Dr. WILLIAMS, President.

READ, OBSERVATIONS ON THE BLOOD DISCS AND THEIR CONTENTS. BY JOHN QUECKETT, STUDENT OF HUMAN AND COMPARATIVE ANATOMY AT THE ROYAL COLLEGE OF SURGEONS. COMMUNICATED BY DR. PEREIRA.

THE author's observations in the paper whose title has first been given, lead him to the following conclusions. That each red particle of human blood is a flattened circular disc, consisting of an outer membrane or envelope, with a gelatiniform fluid in its interior, which, under certain circumstances, is capable of becoming granular, and of escaping from the envelope in the form of small globules; the general number from each disc being about six or seven; and that the discs may present either a biconvex or biconcave surface, the latter form being, by far, the most common. The author has hitherto failed in making out the existence of a central spot or nucleus as usually described. He declines stating at present what he has ascertained the contained granules to be, intending to lay before the Society, at some future period, not only this, but an important part played by them in some of the effects of inflammation.

The author describes at considerable length the appearances presented by the granules, both in the act of escaping from the discs, and afterwards pointing out the confirmation furnished by his observations, of the correctness of the description given by Lewenhoeck, of the appearances presented by the globules of the blood, that distinguished observer having described each disc as composed of six smaller ones.

READ ALSO, A CASE OF PARTIAL SOFTENING OF THE RIGHT CORPUS STRIATUM, AND LEFT LOBE OF THE CEREBELLUM, WITH IMPERFECT PARALYSIS OF THE LEFT ARM AND RIGHT LEG.

The patient is described as having suddenly lost all sensation and almost all power of motion in the left arm and right leg; neither the intellect nor any organs of sense having been affected before or being affected after the attack. The only preceding symptom had been muscular weakness. She appeared to have undergone a fit, which lasted about half an hour, five months before. Between her admission into St. Thomas's Hospital, September 15, 1840, and her death, she regained the complete power of retaining her evacuations, which had been lessened, but not destroyed, by the last attack; and up to the 3rd of November, her other paralytic symptoms had diminished. On that day, a fit occurred and was repeated January the 6th, 13th, and 23rd. In a few hours after the last fit she died. The pulse had been uniformly slow and feeble; her strength had been supported, and no active treatment adopted.

Serum was found, on examination, under the arachnoid of the brain; otherwise it was healthy, except at two points, in which there was a softened

portion of medullary substance, namely, in the right corpus striatum and the left lobe of the cerebellum.

The cause of death in this case, the author presumes to have existed in the softened points, which he considers as not of the nature of apoplectic clots or of ramollissement; and he considers the mode in which the lesion produced death, as different in kind from what is usually observed where organic disease, after long quiescence, becomes the cause of death. He, therefore, presumes this event was attributable to disease distinct from the parts primarily affected.

The author, in conclusion, points out discrepancies between the phenomena of this case, and the general rules laid down in regard to the relation between the affected portions of brain and the paralyzed parts of the body; and expresses his opinion, that these rules rest at present on an imperfect foundation.

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 20, 1841.

Mr. STREETER, President.

STAMMERING.—MR. YEARSLEY READ A PAPER ON STAMMERING, IN WHICH HE DESCRIBED AN OPERATION WHICH HE BELIEVED TO BE PECULIAR TO HIM.

MR. YEARSLEY, in most cases, removed the uvula entirely, chiefly with the view of throwing both arches of the palate into one. When the tonsils were so much enlarged as to project beyond the columns of the fauces, the uvula was then partially removed, and also so much of the tonsils as projected: in only one case had anything like severe hæmorrhage taken place, and in this the bleeding continued for four hours. The operation, however, might not be unattended with danger, when there was a diathesis to hæmorrhage present in the system.

Mr. Dowling believed that three kinds of operation had been recommended and performed for the cure of stammering; the one proposed by Mr. Yearsley, that described by Dieffenbach, and that practised by Mr. Bennett Lucas. He (Mr. Dowling) had seen cases operated upon by Mr. Yearsley and Mr. Lucas. In all these cases, as well as in those he had seen operated upon by Mr. Yearsley, the operation at the time certainly appeared successful; but he contended that we had not yet had sufficient time to determine whether the good effect would be permanent. Looking at the *invariable* success of all the operations, which were so remarkably different in kind, he could not help thinking that much of the effect was dependent on the shock to the nervous system by the operation and the loss of blood consequent upon it. Mr. Lucas's operation consisted in the division of the frænum linguæ, and the removal of a portion of the anterior fibres of the genio-hyo-glossi muscles: Mr. Lucas did not perform his operation indiscriminately on all who applied, as Mr. Yearsley appeared to do, but always thoroughly examined into each case, and investigated, as far as possible, into its history and causes; he only operated in such cases as were likely to be benefited by the proceeding. In the fourteen cases operated upon, the tongue was tied down either by the frænum or the muscles beneath; and in all these cases the operation had been successful. In other cases the success had appeared

to be decided at the time, but the stammering eventually returned. He (Mr. Dowling) could not understand upon what principle removal of the uvula and tonsils could relieve stammering; and he thought Mr. Yearsley had brought forward his operation rather as a specific, acting in a manner he did not understand, than as a scientific proceeding, based upon scientific grounds; he objected also to the paper and to the cases as not being sufficiently explicit.

Mr. Alcock had paid much attention to the subject of stammering of late, and had seen many operations performed by Mr. Yearsley. In some of these no good result followed, but in others the operation was attended by marvellous improvement; in others there was some doubt as to whether any improvement had taken place; in others, again, relief, but not a cure, followed. It was evident in some of the cases that the cure was not temporary, nor depended, as Mr. Dowling had supposed, on the shock and loss of blood, for the improvement continued at the end of two and three weeks, when all effects from such causes were gone. He was convinced, however, that stammering depended upon a variety of causes, and that Mr. Yearsley's operation would not be applicable in all cases; in some, however, it was decidedly successful.

Dr. Marshall Hall observed, that the previous speakers had not, he thought, entered into the true line of argument. Too much had been said about enlargement of the tonsils, and of the tongue; too little about the functional properties of the organs of articulation. Now, enlargement of the tonsils induced a certain well-known and easily-recognizable thickness of the voice; tumidity of the tongue induced a special defect of articulation, but neither of these induced stammering. On the other hand, stammering was excited in a little patient of his, whenever the general health was deranged. Dr. Bostock had detailed, in the "Medico-Chirurgical Transactions," a case of stammering cured by the administration of purgative medicines; and, lastly, stammering was excited as a part of chorea. These, and other facts, proved that stammering was not so much an organic as a functional defect; and the question to be agitated that evening was, what relation the excision of the uvula could have with the cure of such a malady. Dr. Hall had been witness to two cases: the first was that of Philip Wyatt; before the operation, which consisted in the removal of the uvula, the patient was asked his name; in vain he attempted to enunciate the Ph; the effort seemed to threaten convulsions; the operation was performed; the same question was put; and the ready reply was, Philip Wyatt! In the second case, the good effect, though less complete, was not less obvious. Now, what could be the rationale of this phenomenon? That it could be at all connected with the more or less open state of the air-passages, Dr. Hall regards as most improbable. In many cases there was no enlargement of the tonsils or tongue, no elongation of the uvula, neither was there any want of volume or force of the expired air, when the word was well pronounced, or in the pronunciation of such letters as did not absolutely interrupt the flow of the expired air, as *v*, *s*, &c.; nor was there, as Dr. Arnott thought, any obstruction to the flow of air in the larynx itself, as he (Dr. Hall) had shown in a paper published in the "Journal of the Royal Institution," in 1831. The obstruction was offered

by the organs, not of the voice, but of the articulation; not of the physical condition of the parts, but of their undue action. In pronouncing the letter *b*, the mouth was closed by the force on adduction of the lips, the posterior nares being closed by the veil of the palate. Long ago Dr. Hall had described stammering as an undue spinal action; the stammering of chorea proved this. He would now venture to ask, might the situation of the uvula, and its peculiar contact with the parts of the posterior nares, lead to a reflex spinal action? The act of vomiting on tickling the fauces was not less marvellous or inscrutable; the uvula in this manner might be the exciter and regulator of speech. Stammering might be induced in cases in which its posterior surface was unduly excitable. In this manner we might explain the effects of Mr. Yearsley's operation; but Dr. Hall begged the society to view his last observation as a conjecture. Elongation of the uvula could have no effect in inducing stammering as supposed, by falling on the tongue; for in the enunciation of many letters, as *b*, *t*, *v*, *s*, &c., it was raised, with the velum, high up, so as to assist in closing the posterior nares.

Mr. Solly thought Mr. Yearsley's operation was not open to the objections of Mr. Dowling, as he had given a full explanation of the mode in which he considered it was beneficial. He (Mr. Solly) however, considered the mode in which it acted was dependent on other causes; vocalisation depended much on the muscles of the soft palate, which were brought into action to make the pillars of the fauces tense for the proper production of voice. When these muscles were in an unnatural state, (or there was an unhealthy condition of the nervous system present,) they acted spasmodically; and when the tonsils were enlarged, they were brought too closely together, and hence obstructed sound.

Mr. Chance believed that stammering was not dependent upon elongation of the uvula, as the affection was so very common in cases in which stammering did not exist.

Discussion adjourned.

March 27.

On Saturday evening last, the adjourned discussion on stammering, particularly as to its cure by operation, was resumed. In consequence of the great interest manifested by the profession on this subject, the attendance was numerous.

Mr. Robins said he had visited Mr. Yearsley, and witnessed his operations. Some were successful, others failed. In one case the tonsils and uvula were enlarged, but no benefit resulted from their separation. One patient had been operated upon elsewhere previously, but the removal of his uvula and tonsils by Mr. Yearsley afforded no further relief. In general he did not observe that the tonsils of stammerers were enlarged, but thought that the uvula should in all cases be removed.

Mr. Yearsley proposed that one of his patients should now be admitted and examined by the members, but this proposition was negatived.

Mr. Lee here read a paper which contained the results of his observations on this subject in Paris and London. He considered that stammering might in some measure depend upon physical lesions: such as enlargement of the tonsils and uvula, the tongue bound down by the frænum and genio-hyo-glossi, and disproportioned size of the muscles

of one half of that organ, by which it was drawn to one side of the mouth; yet he believed the mischief arose generally from disordered nervous function. This was illustrated by the similar effects of the nervous affections. Many patients had distinct intermittent periods of stammering. Some were affected by the dry or humid state of the atmosphere, while others were decidedly worse at the full of the moon. In Paris, vast numbers were cured by education—by moral tuition—but the defect was in those cases very apt to recur. He noticed in Paris that there were very few women who suffered from stammering. Mr. Lee proceeded to observe, that several patients laboured under an evident difficulty in placing or retaining the tongue to the anterior part of the roof of the palate. In these cases the division of the genio-hyo-glossi had been attended by the most happy effects. Some of the operations which he had witnessed Mr. Yearsley perform had been successful, but in others, when they had failed, he was under the impression that the division of the genio-glossi would still be beneficial. He had noticed little effect follow the division of the frænum and fibres of the genio-glossi until the section had been complete, when the cure was instantly effected. This led him to believe that in certain cases the nerves were not essentially implicated. In addition to the plan proposed by M. Amussat, M. Velpeau excised a triangular portion of the anterior part of the tongue for the cure of stammering with decided success.

Dr. A. T. Thompson had thought a great deal on this subject, and had arrived at the conclusion that stammering was essentially a nervous affection, and bore a great similarity to chorea. He had rarely observed any physical defect in stutters. The vocal chords were unaffected, as was evidenced by their capability of singing. Dr. Thompson considered the division of the genio-hyo-glossi muscles was the most scientific operation which had yet been proposed, but he did not think it would apply to all cases. He was totally at a loss to comprehend why the separation of the tonsils and uvula should be successful. He could not see the principles on which such an operation should be performed. In this scrofulous country, enlargement of the tonsils was almost universal, yet stammering was not a common affection. He remembered a patient whose uvula was three inches in length, and interfered considerably with deglutition, yet the voice was perfect. Except when stammering was caused by imitation, he believed it was a nervous affection, and could be cured by moral restraint and education, but by no operation whatever. In many of the cases which appeared to be cured at the time, the infirmity would return, and he therefore attributed the temporary benefit to nervous emotion and the confidence inspired by faith in the operator.

A member considered it very unreasonable to suppose that stuttering depended on mechanical causes. He was convinced it arose from morbid innervation of the medulla oblongata.

Mr. Wade, although he attributed the complaint to nervousness, yet could not doubt but that an operation would frequently be useful. Many of those now practised had doubtless been successful. He had seen Mr. Yearsley excise the tonsils and uvula with evident benefit. He could not account for the fact that enlargement of these

organs should produce stammering. Possibly it might depend upon the draft of cold air on the uvula exciting spasm.

Mr. Cull had also witnessed some of the operations of Mr. Yearsley. In one case the relief was immediate. In five others little or no benefit was experienced. Did not believe that spasm was essential to stammering. Those who were learning to stammer by imitation, had no spasm whatever. Mr. Cull proceeded to detail his views of the nature of this affection and the various modes of cure. He considered it to depend essentially on a want of association of the different pairs of nerves. He had observed cases where the patients could speak fluently, but, when asked to read, could scarcely articulate a syllable; and *vice versâ*. Almost every case could be cured by education. The secret mode of treatment which Madame Leigh revealed to the Belgian Government for the sum of 10,000*l.*, was the placing a hard roll of cloth beneath the tongue, so as to elevate its point, and the utterance of certain words in a regular systematic manner. Mr. Cull believed that an operation might be useful to remove the accompanying spasm, and then the stammering could be completely cured by moral treatment. Inconvenience and danger attended the indiscriminate removal of the uvula. Dr. Pimenti found, that when the uvula had been removed by the knife, there ever after remained a tendency to inflammation and relaxation of the mucous membrane, which was extremely detrimental to the voice. He therefore removed the uvula when required by cautery. Mr. Cull suggested to Mr. Yearsley the trial of this practice.

Mr. Chance had seen Mr. Yearsley operate on Tuesday last. His opinion was decidedly against the operation. In one case the tonsils were enlarged, but no benefit followed their removal. In another case, the patient had been somewhat relieved by Mr. Bennett Lucas, but received no further benefit under the treatment of Mr. Yearsley.

Dr. Chowne was disposed to look with great doubt on the operation of Mr. Yearsley. He did not believe that stammering depended on a want of escape of the air. It was purely a nervous affection.

After a few words in reply from Mr. Yearsley, the members separated.

CONFERENCE ON MEDICAL REFORM.

At a meeting of the Medical Conference, held at Exeter Hall, on the 1st of March, it was resolved that Mr. Carter, Mr. Farr, Professor Sharpey, and Dr. R. Dundas Thomson, should be appointed a committee, to superintend the publication of the proceedings of the conference. In pursuance of these instructions the committee have prepared the following digest, from the minutes taken by the secretary and the notes of the short-hand writer:—

MEMBERS OF THE MEDICAL CONFERENCE.

1. *British Medical Association*, Dr. Webster, Professor Grant, Mr. Evans, Mr. Davidson, Dr. R. Dundas Thomson.*

* On the return of Mr. Carter to Newcastle, Dr. R. D. Thomson was nominated secretary.

2. *Cornwall Medical Association*, Mr. Grainger.
3. *Devon (South)*, Mr. H. Smith.
4. *East of Scotland*, Professor Sharpey.
5. *Glasgow*, Mr. W. Farr.
6. *Gloucestershire*, Mr. Rumsey.
7. *Irish*, Mr. Carmichael, Dr. Maunsell, Dr. Macdonell.
8. *North of England*, Mr. C. T. Carter, secretary to the conference.
9. *Nottingham*, Dr. Marshall Hall.
10. *Provincial*, Dr. Macartney, Dr. Barlow, Dr. Forbes, Dr. Cowan, Mr. Ceely, Dr. Hennis Green, Mr. Crosse, Mr. Wickham.
11. *Taunton*, Dr. A. B. Granville.*

First Meeting of the Delegates at Exeter Hall, Wednesday, February 3, 1841, at Eight o'clock p. m.

Dr. MACARTNEY, F.R.S., in the Chair.

Present—*On behalf of the Provincial Association*, Dr. Macartney, Dr. Forbes, Dr. Cowan, Mr. Wickham, Dr. H. Green.

On behalf of the British Medical Association, Dr. Webster, Dr. Marshall Hall, Dr. Grant, Mr. Evans, Mr. Davidson, Dr. R. Dundas Thomson.

The North of England Association, Mr. Carter.

The Cornwall Association, Mr. Grainger.

The Devon and Glasgow, pro tem., Dr. Webster.

Mr. Carter was requested to act as secretary of the conference.

A letter from Dr. Maunsell was read, stating that it would not be convenient for Mr. Carmichael or himself to attend the meeting of this day, and suggesting that a time should be fixed during the following week.

It was resolved, that the present should be considered a preliminary meeting.

It was proposed, and after some discussion agreed to, that, in order to elicit the opinions of the conference on the principles and details of a medical bill, the document drawn up by Dr. Webster, at the request of the Southampton committee, should be read, and its various clauses and suggestions should be discussed *seriatim*.

Mr. Wickham suggested, that before proceeding to this discussion a resolution should be passed, to the effect that in the opinion of this meeting neither the bill of Mr. Warburton nor that of Mr. Hawes was considered as satisfactory, or likely to benefit the profession.

After some discussion, the resolution was deemed unnecessary, and was accordingly withdrawn.

Mr. Wickham thought it would be desirable, before deliberating on the nature of a medical reform bill, that the conference should agree as to the grievances under which the profession labours, and the defects which require amendment. The preamble of Dr. Webster's outline of a bill was accordingly read, after which the secretary was requested to read the first clause of the same document:—

"1. That all members of the medical profession in Great Britain and Ireland, being graduates, members, fellows, or licentiates, of any of the existing chartered or otherwise legally-constituted universities, colleges, or corporations established in these realms, and all persons otherwise legally

qualified to practise medicine at the passing of this Act, shall be constituted into one corporation or faculty of medicine."

Dr. Cowan objected to the establishment of the faculty of medicine specified therein, on the ground that it would be subversive of existing colleges and corporations. He was of opinion that the improvements in medical education, and the greater liberality evinced of late by the corporations, were such as to entitle them to retain their present powers under certain modifications. He thought, also, that the introduction of the elective franchise into the profession was uncalled for, and that it would be productive of disorder and other bad consequences. He admitted that reform was absolutely necessary, and that a minimum qualification should be established, without which no one should be admitted into medical practice. He would render one uniform system of education imperative on each and every body which at this time has power to examine and to grant diplomas, and he would advocate the appointment of some central and controlling body, which should be authorised to enforce such uniformity of operation. He was also of opinion that the profession required protection, and that the central board should superintend the interests of the medical practitioner, and adopt measures for defending him against the encroachments of illegal competitors.

Dr. Forbes could not agree in the sentiments expressed by his colleagues. He thought there should be one examining and licensing board in the capital of each country, and that the Apothecaries' Company should cease to have control over medical education and practice. He was desirous to preserve the existing colleges, though not upon their present footing, and was favourable to an incorporation of the profession.

Dr. Grant said he would be most unwilling to be instrumental in destroying some of the medical institutions of the country, but he did not apprehend that such a consequence would ensue from the establishment of a national faculty of medicine.

Mr. Carter thought there was nothing in the clause now under consideration which was incompatible with the persistence of the existing medical corporations, and he was most anxious to disabuse the minds of many professional men as to the tendency of an incorporation of the members of the profession: the powers which would be conferred upon the governing body of a faculty of medicine, were such as the existing medical bodies were either incompetent to perform, or had entirely neglected to put in force.

Dr. Cowan agreed that there should be one uniform system of education for persons intending to practise medicine; and if such a principle were to be established, there would be some difficulty in showing why the duty of examining should be entrusted to a number of different and conflicting bodies; but granting that one examining board alone should be established in each capital of the empire, it did not follow that the corporations should be entirely excluded from any share in the construction of that board, or that they should not benefit in a pecuniary point of view from the fees payable by persons who might be examined. The College of Surgeons of Edinburgh, while it contended for the preservation of existing colleges in their right of examining, was

* Appointed 17th March.

favourable to an incorporation of the profession in each division of the kingdom. Dr. Kidd, of Oxford, had strikingly pointed out the propriety of one examining board for the general practitioner, although he would retain to existing universities the power of conferring degrees.

Dr. Marshall Hall thought, that whatever change might take place in the examining and licensing of candidates for practice, the colleges would still be resorted to, and that medical men would have inducements for enrolling themselves as members. There was no obligation on surgeons taking the diploma of the College of Surgeons, but that corporation was resorted to by most persons intending to practise surgery. The colleges could not be surprised that their own members should demand a national faculty of medicine, for there had been little sympathy between the councils and members of those institutions. Dr. Hall instanced the alienation of their licentiates by the College of Physicians.

Mr. Grainger did not see how a national faculty of medicine could be established without putting aside the existing colleges, but he did not think its establishment was the less to be desired on that account; the profession required the protection of a representative governing body.

Dr. Webster was astonished at the remarks of Dr. Cowan. He thought that gentleman was retrograding, for the Provincial Association had, at its meeting at Southampton, sanctioned the establishment of a representative faculty of medicine; the incapacity of the existing corporations to form a governing body for the profession, or a board of health for the public, or a qualifying body for the candidate for practice, was notorious. He did not see how these objects could be obtained without a properly-constituted governing body.

Mr. Wickham complained of the entire want of protection afforded the members by the corporations, but he thought they should not be disturbed further than to subject them to uniform arrangements with respect to education. He was in favour of a central board of control.

Dr. Cowan explained that he had no objection to the central board being appointed by the profession, but it should not have the power of the head of a faculty.

Mr. Evans had been a licentiate of the Apothecaries' Hall twenty-five years, and had received neither benefit nor protection from it.

A conversation then took place as to the admission of a reporter, and it was agreed that one should be engaged for taking down the subsequent proceedings of the conference; and it was resolved, That this meeting be adjourned until to-morrow, at one o'clock.

To be continued.

MEDICAL REFORM.

THE following letter has been addressed to Mr. Carter by Sir Henry Halford:—

College of Physicians.

SIR,—Having laid before the College of Physicians the opinions of the medical delegates on certain leading points connected with the subject of medical reform, I have to communicate to you that this College cannot sanction any mea-

sure which contemplates the amalgamation of the existing orders of the medical profession into one faculty; and the consequent extinction of that salutary division into physicians, surgeons, and apothecaries, which has, in the opinion of the College, contributed for so long a period to promote the usefulness, and uphold the scientific character, of the profession.

In reference to the proposal to form a council in each kingdom, to be elected by the votes of the whole profession, the College is of opinion, that by the means proposed such a body could not be constituted as would command the confidence of the profession, and promote its harmony and public utility.

The College is most anxious to adopt such measures as will ensure a high grade of education, and uniformity of qualifications, for physicians, as well as protect the interests of that branch of the profession in the three kingdoms; and it will cordially co-operate in any proposal to the legislature, having a similar object, with respect to surgeons and to apothecaries.—I am, Sir, much yours,

HENRY HALFORD.

March 9, 1841.

TO CHARLES T. CARTER, Esq., Hon. Sec.
of the Medical Delegates, &c. &c.

THACKERAY PRIZE ESSAY.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—In the PROVINCIAL MEDICAL AND SURGICAL JOURNAL for March 6th, some remarks are made regarding the mode in which the Thackeray Prize Essay has been published; and, in reply, I have to state, that I was most anxious for its insertion in the Transactions of the Provincial Medical and Surgical Association, and was much disappointed when I received Dr. Hastings' letter, informing me that it was impossible to admit it on account of the accumulation of manuscripts. From the first announcement of my success, I was resolved, if allowed, to publish it in a separate form, but at the same time was of opinion, that if inserted in an entire shape in some periodical work of high respectability and extensive circulation in this and other countries, an advantage would be secured to it, which it was not likely to obtain to such an extent in any other way. From the decided tenor of Dr. Hastings' letter, it never occurred to me that the Council of the Association had any desire to be consulted respecting the mode of its publication; for, if he had expressed any wish upon the subject, either in reference to themselves or Dr. Thackeray, most certainly it would have met with my best attention, and most probably with an accession to their views. I have now only to add, that the essay is published in a separate form, and will be out in a few days.

I am, Gentlemen, your obedient servant,
WM. DAVIDSON.

Glasgow, March 27, 1841.

HOUSE OF COMMONS.

MEDICAL INTELLIGENCE.

Tuesday, March 30.

Mr. T. Egerton presented a petition from a place in Cheshire, praying for the appointment of a general superintendent of the medical officers of unions.

Sir W. Follett presented a petition from the medical practitioners of Exeter, praying for alteration of the mode of appointing medical officers, and against the disgraceful system of tender, and for a general medical superintendent.

Mr. C. Lushington presented a petition from Ashburton against the Medical Reform Bill.

Mr. Goulburn asked the honourable member for Lambeth, when he should be prepared to bring on his Medical Profession Bill?

Mr. Hawes replied that he did not intend to bring it on before Easter, but he would do so at an early day after the holidays.

When the discussion on the Poor Law Bill commenced, Mr. Wakley made some observations on the provisions relating to medical relief, and contended that in the absence of a learned Serjeant, (Mr. Talfourd,) who had taken much interest in that subject, they ought not to be proceeded with, at the same time that he did not think they ought to be put off to a late hour, or to a time when the house was thin.

Lord J. Russell concurred with Mr. Wakley as to the importance of the measure, and the expediency of its being discussed when the house was full, and in the presence of the gentleman alluded to.

Mr. Mackinnon presented a petition from certain medical practitioners, praying that medical superintendents might be appointed to see that due medical care were taken of the sick poor.

Lord Norreys presented a petition from medical practitioners at Henley-on-Thames, praying for a better system of medical relief for the poor.

Lord Morpeth presented a petition from medical practitioners in Ireland, against the Bill for regulating Medical Charities.

Mr. Muntz gave notice that in the Committee on the Medical Profession Bill, he would move that in future all medical prescriptions be written at full length and in English, and that labels and all names of medicines on bottles, jars, &c. in medical shops, be also written in English.

In the House of Lords, the Earl of Falmouth presented petitions from Penryn and other places in Cornwall, praying that a medical director should be appointed under the Poor Law Act, and objecting to the appointment of medical officers, as practised at present, by tender.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, March 26, 1841.—Robert Webb, John Ellison, Thomas Robertson, James Haugh, Anthony Colling Browless, John William Firminger, George Bowring, Robert Large Baker, Saville Marriott Kelly, James Vaughan.

CONCOURS.

M. Blandin has been elected to the Chair of Operative Medicine, vacant by the death of the late Baron Richerand. The Concours has been extremely creditable to the rising surgeons of the French School. Amongst the candidates were MM. Malgaigne, Michon, A. Berard, A. Sanson, Lenoir, Vidal de Cassis, Chassaingnac, Robert, Sedillot, and Boyer.

BOOKS RECEIVED.

Philosophic Nuts; or, the Philosophy of Things as developed from the Study of the Philosophy of Words. By Edward Johnson, Esq. Nos. 3 and 4. Simpkin and Marshall, London, 1841.

Elements of Medicine. Vol. II. On Morbid Poisons. By Robert Williams, M.D. Bailliere, London, 1841. 8vo. pp. 686.

Revue des Faits Chirurgicaux Observés à l'Hôtel Dieu de Bordeaux, etc. Par Eugene Bermond. Chirurgien-en-chef. Bordeaux, 1841. 8vo. pp. 63.

Recherches Critiques et Cliniques sur le Siègle Précis de l'Etranglement Herniaire. Par M. Diday. Paris, 1841.

Quelques Observations de Fractures des Articulations. Par Eugene Bermond. Balarac, Bordeaux, 1840.

The Sources and Mode of Propagation of the Continued Fevers of Great Britain and Ireland. By William Davidson, M.D. Thackeray Prize Essay. Churchill, London, 1841. 8vo. pp. 80.

Traité Pratique des Accouchemens. Par F. G. Moreau. Bailliere, London, 1841. 8vo. pp. 559.

TO CORRESPONDENTS.

Several irregularities in the delivery of the Journal by our late Publishers having been frequently complained of, we have to assure our readers that care will be taken to forward the Journal punctually by every Friday's post. Should any Subscriber require one or more numbers to complete his set, we shall forward them to him (gratis) on receiving a line of advice.

Printed by THOMAS ISOTSON, of 105, St. Martin's Lane. in the Parish of St. Martin in the Fields, and GEORGE JOSIAH PALMER, of 30, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMSEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, April 3, 1841.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

No. 24. Vol. II.] LONDON, SATURDAY, SEPT. 11, 1841.

PRICE SIXPENCE.
[STAMPED EDITION SEVENPENCE.]

COURSE
OF
LECTURES ON PHYSIOLOGY AND
SURGERY,
DELIVERED AT ST. GEORGE'S HOSPITAL,
BY JOHN HUNTER, F.R.S.
(From the Manuscript of Dr. Thomas Shute.)
LECTURE X.
FISTULA. DISEASES OF BONE.

THIS term is very inadequate to what it is meant to express, for the fistula is only a symptom of the disease. It is necessary to have a general idea of the cause of fistulae. They are intended for the passage of some fluid or extraneous substance, or for some secretion, as in fistula in perineo, or for some natural discharge, as from the parotid, or in abdominal fistula, for the discharge of faeces, making artificial anus. Among the fistulae which are to supply the defect of an obstruction of a natural passage, is that of the lachrymal sac. The tendency to heal in fistula differs according to different circumstances. Of this, there are two principal causes; an unfavourable opening, and the seat of the part being diseased.

When parts are deep-seated; granulation is retarded, and the opening being so situated that the matter does not readily escape, prevents granulation, which is sometimes the case in large abscesses of the breast; when these break above, the weight of the matter prevents granulation, and is not sufficient to produce ulceration. The second cause may arise from a part which is naturally indolent becoming diseased, as tendon, ligament, bone, &c.; or from a disproportion in the disposition for healing in the external and internal parts. Parts which are deep-seated, have not so strong a disposition for healing as those which are superficial, therefore in lumbar abscesses the parts do not heal, and the external opening heals to a small orifice, and then remains in that state.

The reason why fistulae do not heal, is usually said to be the discharge of matter continually passing through the opening; but this does not appear to be the cause, for if a more favourable opening is made for the matter, and none discharges by that orifice, it will remain open, which we frequently see in fistula in perineo, where the opening through the urethra is perfectly free. This backwardness to heal seems to arise from a sympathy or intelligence between the deep-seated and superficial parts, for as long as the seat of the disease continues unsound, the opening will not take on the healing disposition.

A fistula in ano begins two or three inches up, on the side of the rectum, perhaps on the external coat of the gut, or from its being diseased; the
No. 50.

matter descends, making an external opening through the integuments, but usually does not penetrate the gut. If there is a stone in the bladder, and a wound is made into it, the wound will not heal while the stone remains there; or if the bladder is much diseased and an opening is made, the external orifice will not heal, although those parts are perfectly sound, which must arise from sympathy between the external and internal parts. The external opening is called fistula, but when there are a number of other small canals branching from it, and leading to different unsound parts, these are called sinuses.

In the cure of fistula we are first to consider the cause. If it arise from the obstruction of a natural opening, as in fistula lachrymalis, then that must be removed, or a new one made.

If it be caused by a collection of matter it is easiest cured, therefore fistula in ano generally yields to treatment more readily than any other. If the cause arises from an unfavourable opening for the discharge, then we should make one which is favourable.

If the fistula continue open from the bottom being unsound, then openings should be made to expose it as much as possible; but if the part will not admit of this, either from its situation, or being seated in a vital part, then we must be content with keeping it open, for the discharge of matter. In lumbar abscesses, we cannot expose the bottom of the cavity, and sinuses formed in joints will not admit of exposure.

Fistula Lachrymalis.

Fistula lachrymalis is caused by an obstruction of the duct: this often happens after the small-pox. This disease is often produced in venereal cases. Sometimes there is an adhesion between the septum and that side of the nose, which may be felt by carrying a probe up the nostril. Contraction of the duct may, perhaps, sometimes produce it, as in the urethra. When the duct is obstructed, the lachrymal sac becomes distended; this produces inflammation, and then the tears will increase it by their stimulus, owing to the salt which they contain. The tears will not cause inflammation, but they will increase it. The sac then suppurates, and we have matter mixed with the tears; it afterwards ulcerates, and gradually makes its way to the skin. To cure it, the obstruction of the duct must be removed, and if it cannot be removed, then a new passage must be made. It is not always possible to do this, for sometimes there is an entire adhesion of the septum on that side with the nose, obliterating totally the cavity of the nostril. Pressure alone in these cases could not probably occasion much inflammation, for we see the tunica vaginalis considerably distended in hydrocele without occasioning it, but if a stimulus was added to the fluid similar to the tears, then it would inflame.

Fistula in Ano.

A fistula in ano generally begins two or three inches up on the side of the rectum, perhaps from an inflammation of its external coat, or from some disease of the rectum at that part. It always points externally at the integuments on the side of the rectum; a free opening in this part is not sufficient to heal it; the rectum must be divided too. It must be treated just as an abscess, considering the inside of the rectum as an internal surface, and opening to the origin of the disease.

Diseases of the Bones.

Bones, in anatomical lectures, are always considered separately, as a very distinct and different part of the body, both in their structure and growth; therefore we have lectures particularly treating of their formation, when nothing is said of the growth of a tendon, or a muscle, &c. In books of surgery the diseases of the bones are treated of distinctly from other parts, since they are not considered as subject to the same laws under disease. Bones may be regarded as composed of two parts, an animal matter and calcareous earth.

They partake of all the diseases of other parts, being equally affected by them, therefore we have the venereal virus in bones; cancer, and scrofula, &c. The effects are sometimes different, which arises from the difference in structure. Where there is such difference only, the disease will be spoken of, it being unnecessary to speak of each disease. These parts are more tedious in their operations towards a cure than others, which may arise from the calcareous earth they are combined with.

It is very difficult to know the extent of a disease in a bone, therefore difficult to know how to treat it. In soft parts it is generally very easy to discover how far the disease has extended by the inflammation. The hardest bones are generally easiest of cure, but this usually depends on exfoliation; they exfoliate sooner than those which are less compact. When they are inflamed considerably, they generally die. They may, perhaps, be readily deprived of their animal part, that is, ulcerate easily, but cease to be connected with the body. When a bone is exposed, it generally exfoliates, that is, if it is deprived of its periosteum, it exfoliates as far as it is exposed; but if a muscle projects in the same manner, it will not slough. Soft bones retain their living principle much longer than those which are compact; therefore they are less apt to exfoliate. This may arise from their being more vascular.

The cure in a soft bone is more lasting than in those which are hard. Bad formation of the bones produces bad health; a badly-formed skull may hurt the intellectual faculties, and a badly-formed trunk produces bad health, which is generally the case with crooked people; it is very seldom that they are fat. Thus, a disease of the bones may affect the constitution mechanically.

Many accidents produce much worse consequences in bones, than the same violence would do in soft parts; this is owing to their resistance not receding from the injury. If a heavy piece of iron was suspended by a cord and forcibly struck with a hammer, it would make a dent; but if a small

piece was suspended and struck in the same manner, it would produce no injury, from the parts receding from the blow. Thus it is with bones; the same degree of injury which would fracture it, would produce no effect on a muscle; and when soft parts are injured, it is generally owing to the resistance caused by the bones underneath. If a blow is given on the shin, it produces injury from the resistance of the tibia; if the same blow was given on the abdomen, it might produce no effect at all.

Bones and joints easily take on any scrofulous tendency which is in the habit. Children who get any blow on a bone or strain of a joint, are very apt to put on the scrofulous appearance, if there is the least tendency to it in the habit. When a bone has been once diseased, it is very apt to become so again; the part always being very weak afterwards. Bones which are commonly called carious are not always rotten, for it is common to say that a bone is carious, if it can be felt with a probe bare; though it is no proof that the life is lost. We should not declare that a tendon was in a sloughing state from being able to feel it distinctly, and yet it is as reasonable to suppose so. Caries is a term which gives no idea of the disease. An ulcer of the bone is properly meant by it.

Ulcerations in bone partake of the same varieties as other ulcers. Caries in books is generally divided into dry and moist: this division arises entirely from ignorance of the disease. The dry is said to exfoliate easily, the moist with difficulty; therefore, the cautery is ordered to be applied to produce dryness, that the bone may exfoliate sooner. The truth is, the moist bone is not dead, for as long as it discharges anything, it must be alive; the cautery, by causing death, promotes exfoliation.

Bones go through the three stages of inflammation as other parts: the adhesive, suppurative, and ulcerative. The first stage of inflammation in bone, I would call the ossific, because in this, new bony matter is added; in this respect it differs from inflammation in other parts. The simple adhesive process in bone would be insufficient; it produces a proper texture to unite soft parts, but would be inadequate in bone. Suppuration is the same as in other parts; when matter forms in a bone, or between it and the periosteum, we have the bone ulcerated, but it is much less frequent in bone than in other parts. Ulceration also is similar to that in other parts; but in this it often removes complete portions without causing any suppuration.

Every disease requires a peculiar treatment, and each part likewise; for although Nature is very regular and uniform in her operations, yet she deviates in different parts, but in these deviations she is constantly regular. Therefore the treatment must be regulated according to the operations of that part. Each part has a disposition to form itself, and the part always forms a similar substance; therefore we have skin forming skin, muscle, muscle, cartilage, cartilage, bone, bone, &c. However, in some instances, Nature seems to deviate from herself, as in the formation of bone; where we see her, first forming cartilage, and afterwards removing this cartilage, and putting bone in its place; in the skull she first forms a membrane, and then bone; in this seeming deviation, however, she is equally regular, for after-

wards, if any of these parts are removed, she replaces them in the same manner; in the extremities first forming a cartilage, then bone; in the skull membrane, afterwards bone.

Bones when inflamed swell, as other parts do; this is attended with a heavy pain, which precedes the swelling some time, from which it seems that the process is slow, and performed with difficulty, for in soft parts the inflammation and swelling begin nearly at the same time. The time of swelling will vary according to the nature of the bone; in those which are spongy, it will be sooner than in those that are compact. It is very difficult to conceive how the swelling of a bone is effected, or that it can arise from extravasation of fluids. However, the swelling is very evident, and occurs without any appearance of additional matter being laid on the surface, but is regular throughout, as may be seen in the femur. I confess that I have no perfect idea how it is effected. It may possibly arise from a deposit of calcareous earth, and therefore when bones have been inflamed, we frequently see their internal reticular part entirely filled up. The constitution is considerably harassed in cases of this kind, from the continuance of the heavy depressing pain, but it is not easy to say whether the pain arises from pressure on the nerves, or from a peculiar disposition of the nerves to become painful at that time. The use of this inflammation is the same as the adhesive in soft parts.

Anchylolysis.

Inflammation of bone frequently produces anchylolysis, of which there are five species, four produced from this cause; the fifth, from another, which will be explained hereafter.

The first species is where the parts situated between two bones take on the ossific inflammation, and thus form a bony connexion, the parts between becoming ossified; by this means we have one rib united with another; one metacarpal bone with another; the tibia with the fibula. The second species is the union of joints, where there is no capsular ligament, as in the bodies of the vertebræ; these are united by cartilage.

Here is a specimen of a thorax, in which all the bones are anchylosed, so that the person must have breathed entirely by the diaphragm.

The third species is where the capsula ligament takes on the ossific disposition, and forms a bony connexion by the ligament becoming ossified, as you see in this specimen of the shoulder of a lion. This must be much more difficult where the joint has an extensive motion in every direction, than where it is more confined, as in the bones of the pelvis; but when the capsular ligament is short, it is much more frequent, as between the head of the fibula and tibia.

The fourth species occurs when the articular cartilages inflame, become soft and vascular, filling the cavity with extravasated fluids, and thus forming a soft anchylolysis, these parts afterwards ossifying, and the two bones becoming one. The cartilage in this case loses its disposition to reproduce cartilage, and the joint becomes in the same state as a simple fracture. Indeed, the union of simple fractures takes place on the same principle; it is produced by the extravasated blood becoming vascular. The ends of the bones inflame and ulcerate, the ossific matter being removed; they then become more vascular, like a

growing bone, and shoot their vessels into the coagulum; thus the ends of the bones become soft, to unite with soft parts.

The quantity of callus is in proportion to the mischief done to the surrounding soft parts; the more they are torn, the larger is the cavity for the reception of extravasated blood, which afterwards becomes bone; it will likewise depend on the degree of inflammation, for the surrounding parts taking on the ossific inflammation will become ossified, and by that means increase the size of the callus. The disposition for the formation of callus is very different in subjects of the same age. It is generally stronger in the young. Inflammation beginning in a part near a bone will sometimes be communicated to it, when the bone will give the ossific disposition to the soft parts; therefore we may have this specific kind of inflammation in a soft part, and without its beginning in a bone.

The third species of anchylolysis seldom occurs, the motion of the joint preventing it, especially in those joints which have extensive motion; another cause is, the distance of attachment between the two ends of the ligament; the length of the ligament being so much, that the ossific inflammation communicated to it from the bone seldom extends along half the length of the ligament to meet the inflammation on the other side.

The fourth species, where the surfaces of the bones are united by the cavity of the joint being filled by ossific matter, may be caused by the articular cartilage being absorbed, which sometimes happens, or from the cartilage changing its disposition, becoming soft and vascular, throwing out fluids which fill the cavity of the joint, and afterwards become bony. All this will arise from an inflammation surrounding the joint, and communicating itself to the articulation.

I examined the elbow-joint of a lady who had abscess near the joint; the latter was anchylosed in the manner last described, forming a soft bond of union, but she did not survive long enough for it to become ossified. This inflammation does not always proceed so far as to produce ossification; the ligament only becomes thickened. If we could by any remedy prevent ossification from taking place in these cases, it would be a great point gained; for by keeping them in the soft state, the parts might be absorbed, or at least there would be some motion in the joint. Callus of a simple fracture is more lasting than that of a compound fracture. Although it is mechanically stronger than original bone, yet its living powers are weaker, and it is not able to resist disease so much.

The callus of a simple fracture will not be absorbed so soon from a weakness of the constitution, as that of a compound fracture, which shows that the living powers of the former are strongest.

Ossific inflammation of bones.

The union between two broken bones must be ossific, for any other would be of little effect.

Simple fracture unites commonly in a fortnight, in some constitutions motion may be perceived at the end of twenty days; it is in most cases cured within a month. After a month has passed, or the natural time of the healing process, it is impossible to say when the union will take place, perhaps never; when the opportunity passes, nature often never renews her action.

This union does not always take place, for we sometimes have a fracture remaining in the same state as the soft ankylosis before described (or the thickened ligament) for years, remaining moveable, and forming something similar to a joint. This deficiency in the formation of callus is in general attributed to a bad constitution, or to the part being much moved; but it does not appear to arise from either of these causes; for if the fracture is made compound, which has been done, the wound will heal well, and form a good callus; this then is a proof that the constitution was good. Motion does not appear to prevent it, for a dog that breaks his leg, and runs about with it loose and dangling in the streets, will have the bones as firmly united as if it was kept ever so quiet. In all the processes performed by nature, there are certain leading principles, which are followed by other operations in regular succession; if the first principle of action is stopped, or any other succeeding operation, it generally puts a stop to all which were to follow, there being a regular chain or connexion between the processes of nature to perform some work; and if one of these is prevented, it generally stops all which were to follow, each depending on the other. This may be explained in what takes place in the descent of the testis. The descent of the testis is a natural operation of the animal economy at a certain period; when this process takes place, and the testis has descended, then commences the period for the closing of the tunica vaginalis; if by any accident the tunic is prevented from closing (as from a bit of intestine or omentum slipping into it) at the stated period, it then loses its disposition to perform such operation, and it remains ever after open. Thus it is in the different operations of nature, and this may perhaps be the cause of simple fractures not uniting sometimes; by some accident the leading operations may be destroyed or stopped, as, for instance, if the extravasated blood, which forms the beginning of callus, should lose its living principle, then by becoming extraneous it would give the stimulus for absorption. The extravasated blood may be absorbed as in an ecchymosis: it evidently loses its living principle in some cases. By losing its life it may not coagulate, but give the stimulus for absorption; when absorbed, the other processes would not go on to unite the bones, but a new stimulus would be given, which would be to make a joint. I have lately met with a fractured thigh, in which the blood had been absorbed; on examining it I found a kind of granulation, shooting everywhere from the surface of the bone, which would, I think, have taken on the ossific disposition, and have performed the union. These were not attended with pus; therefore this is only necessary where the granulations are exposed, and perhaps intended as a covering. The extremities of the bones becoming enlarged, and the projecting parts of the bone rubbing against each other, give the stimulus for absorbing those parts, by which means the extremities of the bones become smooth, and covered with something similar to cartilage. The extremities of the bones are not ground by friction, for then we should find the matter which was ground.

The formation of a joint between the two ends of a fractured bone seldom happens; it is much more frequent for them to be united by soft ankylosis, that is, by a cartilaginous or membranous sub-

stance, which will admit of some motion; and therefore, it is to be wished for in those cases where joints ankylose, but we know of no power to prevent ossification. The constitution, by being very much weakened, will prevent ossification, and even cause its absorption, but to bring it to such a state, perhaps, would not be prudent. These cases may be cured by making the fracture compound, when they are situated so as to admit of it; the exposing the extremities of the bones will give a stimulus, causing inflammation and granulation, when the callus will form in the granulations as in compound fractures, or become ankylosed, as in the exposure of joints. It may, perhaps, be necessary to saw off the ends of the bones to produce a greater inflammation.

A similar disposition take place in dislocations, as in cases where bones do not unite; the bones not being able to recover their situation, nature sets about making a new joint; if the head of the bone is situated against a bone, then the pressure causes an absorption, and makes a cavity to adapt itself to the head of the bone; a substance like a ligament is formed, and connects the bones together, secreting synovia and making a joint.

In this case two operations take place at the same time; the bone in contact ulcerates and the surrounding bone inflames, which causes it to thicken and raise itself round the head of the bone, forming an articular cavity. If the head of the bone is situated in soft parts, these adapt themselves to it in the same manner, making an articular cavity.

CASE OF SHORTSIGHTEDNESS

CURED BY OPERATION.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—The arduous and laborious pursuits of my profession have alone prevented me from contributing to your excellent Journal an earlier or a better production than the following, which, if you should think it worthy of insertion in your columns, is at your service.

Your obedient servant,
JAMES ADAMS.

27, New Broad Street, Sept. 1841.

" Henry Stevens, æt. 17, a healthy-looking lad, marked by the small-pox, has light hair and gray irides, with rather more than usually dilated pupils. Association unusual; if the right eyelid be closed, the left eye remains in its natural central position; but if the right eyelid be suddenly raised, the right cornea will be found much inverted: if the right eyelid be left open, the right cornea is seen to move, gradually, to its natural central position, in order to correspond with the left; if the left eyelid be closed, a similar result does not take place, the association being perfectly natural.

Position of both eyes perfectly natural. If an object be held close to the root of the nose, and the patient be desired to look at it, both corneæ are, at first, slightly and equally converged; but, as the effort to view the object with both eyes is

increased, the left eye becomes more converged than the right, the cornea of which returns to its natural central position, and remains there. The power of inversion and eversion of the cornea are equal and complete; with both eyes open, can see the letters of small print for a few seconds, if brought to a point within *three* inches of the eyes; and see to read very large print if within *seven* inches, but not beyond. His present employment is that of assisting to print oil floor-cloth, but he finds that it will be impossible to continue at the occupation, because he cannot see distinctly the marks* for joining the patterns, or tell the straightness of a line exceeding one yard in length. Has tried to follow the business of a wheelwright, but was obliged to abandon it on account of his not being able to see the figures of the rule, and many other necessary parts of the work. Has also endeavoured to follow the trade of his father, namely, that of a tailor, but he can neither do fine needle-work, nor thread any needle less in size than a worsted one. His parents have taken much pains to teach him to read, and have procured for him books with very large type, but all to no purpose; for if he endeavoured to fix his attention on the letters, they would become so obscured by a mist, as not to be recognised till the eyes have been rested; so that on any slight exertion of the eyes they get dim and filled with tears, thus quickly depriving him of the power to see anything distinctly.

If the left eye be open, while the right is closed, the sight is better than when both eyes are open; dimness, however, soon increases after exertion of the eye; its sight is best towards the nose; can see small print at *three* inches, and large print at *seven*.

With the right eye, unassisted by the left, the sight is much worse than if both eyes were open. He can just tell the difference between man and woman by their dress, but cannot see their features; *cannot accurately tell the number of fingers that may be held before him*, or see to distinguish the form of the largest printed letter, which, in order to examine, he holds at the distance of *two* inches from his eyes; the dimness of this eye, after very slight exertion, will increase to nearly perfect darkness; in general, the mist is less dense in a direction towards the shoulder.

He complains of much pain in the forehead, eyebrows, and temples, accompanied by a sense of soreness; and that moderate bodily exertion, or application of the eyes to small objects, instantly excites the pains. If he looks at any small object for a few minutes, the sight not only becomes so dim as to leave him in perfect darkness, but the pains will have been produced in their severest degree, and will continue for an hour or more. The fits of pain are occasionally attended by attacks of sickness, giddiness, and general headache. Has been subject to these attacks ever since he had the small-pox; they have been more frequent in the summer than the winter.

History.—Previously to the age of nine years, his eyes were perfectly healthy and natural; at nine years of age he was attacked by the small-pox, accompanied by severe inflammation of both eyes and intolerance of light, which lasted during many weeks.

* They are called pitch marks, and consist of thick wire points.

On his recovery, his eyes were much in the same condition as they are now, and they have continued thus ever since.

First operation.—May 10. Divided the *right internal rectus* muscle, which caused the right eye to slightly diverge, and its pupil to become largely dilated, but not to be deprived of the power of acting freely. It remained in this state for several hours after the operation.

12. Position of the right eye slightly divergent; the left natural. Sight very much improved in the right eye: all objects look brighter and plainer; he can see objects at a greater distance than he has been accustomed. He has been using his eye to examine the lines of the pavement, the cracks in the floor between the boards, the markings of the tiles, &c., all of which appear so very large and plain, and to quote his own words, he says that he "feels as if he were in a new world, everything appears so strange;" can distinguish the lines of print, and the spaces between the letters; dimness deeply increases in the right eye after a moderate exertion. With both eyes open, sight is much better than it was before the operation; but he sees double at times, to the left side.

Treatment since the operation has been fomentation, and the close bandaging of the left eye.

17. Position of the right eye very divergent; of the left, natural. Sight of the right eye in every respect improved; can distinguish the features of different people; can tell accurately the number of fingers held up before him—in fact, he can recognize any object that may be presented to him, and can even read the letters of very large-sized print at the distance of *six* inches. The dimness after exertion of the eye still increases, but not so rapidly or to so severe a degree as it used to do.

Second operation.—Divided the right external rectus muscle, which caused the right eye to become straight, and the left slightly inverted.

19. Position of the right eye central; left slightly inverted. Sight, with both eyes open, much better than he has ever known it to be; can read newspaper print with ease, at the distance of *twelve* inches, for a much longer time than before operation; (has not ventured to try the full extent of this improvement;) sight, in the right eye, remarkably improved; can read by it, easily, a print of twice the size of common newspaper print, at the distance of about *nine* inches. Dimness does not increase after moderate exertion, though he still sees best towards the right external canthus. He states that the sight in the *left* eye is very much improved since the operation on the right, for he can see further and plainer with it; also, that its dimness does not increase so quickly.

July 5. Position of both eyes perfectly natural, but the right eye is slightly more prominent than the left. Sight, with both eyes open, much improved; can see to read moderate-sized print very distinctly, at the distance of *one foot* from his nose, and small print at a point situated *nine* inches from him; dimness does not appear on moderate exertion. Sight in the left eye improved; he can see with it when the right eye is shut as perfectly as if both eyes were open; he also sees equally well with it in all directions. Sight in the right eye not quite so good as in the left, or as with both eyes open; *small print* must be held at about *seven* inches from the nose; dimness does not increase after moderate exertion.

As additional evidences of the improvement of H. S.'s vision with respect to distances, he states, that previously to operation, he would be compelled to stand close under a house-clock if he wished to see the hour, and that at present he can see accurately to name its time from any part of the room in which the clock may be situated; he also says that he has seen, since the last operation, the hands of a certain church clock, which is so situated with respect to one of the windows of the factory at which he is employed, that a person with good sight can tell its time; though previously to operation he could not discover even the position of the clock's dial; he adds, moreover, that since the day following the last operation, he has continued to work at his employment in the floor-cloth manufactory, without on any occasion having missed the pitch or pattern marks, though previously to operation he would frequently do so by one inch or more.

The following circumstances relative to the position and motions of the eyes were now noticed.

Association, natural; convergence, slight and equal at about six inches; repulsion in the right eye, and very slightly beyond its centre; inversion not complete in the right eye by one line, but more than complete in the left, by one quarter of the surface of the cornea; eversion equal, but not complete by half a line.

He has been wonderfully relieved from pains about the brows, but still is subject to them over the right eye and right side of the nose. Has not had any attack of sickness since the first operation; he used to be subject to them two or three times a week, and their frequency had increased since his employment at the factory.

Third operation.—July 12. I divided the left external rectus muscle, which caused a complete inversion of the left cornea; the right eye remained in its central and natural position; after the operation he had no power of everting the left cornea beyond one line from its natural centre. If the right eyelid be closed, and the patient directed to look as much as possible to the left, the eversion of the left cornea is not increased beyond one line outwards of its centre, though, if the eyelid be suddenly raised, the right cornea will be found to be nearly completely inverted. If the left eyelid be closed, the left cornea will be found more inverted than when both eyelids are open.

Sight, with both eyes open, improved; he can see to read a moderate-sized print at the distance of one and a quarter feet; sight in the right eye as before the last operation; sight in the left eye improved, and equal to both eyes open. Sees slightly double, if he looks at an object situated on his left side.

He now complains of severe pain in the left eye, which is felt at the upper and outer part of the left edge of the cornea; it is only felt at the instant of closing the right eye.

August 3. Position of the right eye central, and that of the left eye slightly inverted. Wound nearly healed. The prominence of the right eye is yet more evident than that of the left. Sight, with both eyes open, slightly improved since last report; he can read the small print, "*pearl*," at the distance of *nine inches*, and newspaper print at the distance of more than a foot from him. If he holds small print at the distance of three inches, (the distance he was compelled to hold it pre-

viously to operation,) he cannot see it so distinctly as when held at about five or six inches, and to try to do so makes his eyes ache. He says that he can see to thread a very fine needle at the distance of seven inches. Sight in the left eye not quite equal to the sight experienced with both eyes open; can see small print, "*pearl*," only at eight inches; its dimness increases after moderate exertion, and he sees best towards the nose, so that the sight in this eye is, for the present, slightly the worse for the operation. Sight in the right eye not quite equal to the left; sees equally well with it in all directions; small print, "*pearl*," is seen at seven inches, and dimness does not increase after exertion; the sight, in this eye, remains as before the last operation. He says that he can see to follow every branch of his business without the slightest inconvenience, but that he occasionally finds himself stooping over his work from habit, which he endeavours to correct, being now able to see to do any part of the work from the same distance as most other men.

He has occasionally pains of a shooting character about both temples, which are increased by a close day's work. The pain in the left eye has subsided; association, active and central in the left; convergence, equal and full at three inches; repulsion of the right eye full to the centre; inversion of the right eye just complete, but in the left more than complete by one quarter of its conical surface; eversion not complete in the right by fully one line, and in the left by nearly two lines.

Fourth operation.—9. Divided the left internal rectus muscle, and both eyes became and remained perfectly straight.

September 1. The appearance, position, and association of his eyes are perfectly natural. The eyeballs are not in the least degree more prominent than natural, nor is one more prominent than the other, though both are somewhat fuller in appearance than previously to operation, so that the operations have caused an improvement in the appearance and expression of his eyes. Convergence full and equal at two inches; repulsion in the right eye more than central; inversion and eversion complete, and equal. Sight, with both eyes open, remarkably good; he can see to read small print, "*pearl*," at twelve inches, and a full sized print at about three feet. A day's close work does not cause the slightest inconvenience.

He saw, a few days since, Mr. Green's balloon more distinctly than he had ever seen it in his life; he even saw the ballast falling from the car; formerly, a balloon never appeared to him to be larger than the size of his head, though other persons used to describe to him its immense proportions; he never recognized a car to a balloon till the late occasion.

He can see every object much more distinctly, and at a greater distance, with both eyes open, than by either singly; for instance, small print is distinctly seen at the distance of twelve inches, when both eyes are used, and at only eight or nine, if either eye alone be employed. Sight, in the left and right eyes, has much improved since the last operation, and its strength and clearness are now equally good in either.

The above case is here for the first time published complete, a portion of it only having been published in a letter, which I have recently addressed to Dr. R. Farre, and entitled, "A New

Operation for Amaurosis, Impaired Vision, and Short-sightedness." The letter above alluded to contains a full account of the principles on which this case and others have been treated, and must therefore render their repetition here unnecessary. For the satisfaction of some of your readers, who may hesitate about performing operations on the muscles of undistorted eyes, where there is defect of sight, I beg to say, that in no one instance has the termination of any of my cases been attended by any incurable deformity.

CASE OF A FŒTUS

VIABLE AT SIX MONTHS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—There is no question in medico-legal science more difficult, and none more interesting and important, than that of the exact limits of utero-gestation, that is, the longest and the shortest periods which a child may be carried in the womb, and yet survive. I think, therefore, that the following case, affording an example of as early a fœtus proving to be viable as any that I have ever heard of, may be interesting to your readers, and at any rate deserves to be put on record.

The great difficulty in attesting the exact limits of gestation of course arises, first, from so few women comparatively becoming pregnant under circumstances that enable us to fix the time of conception; and secondly, from the fact that of those few, so small a number are either willing or capable of giving a clear and satisfactory statement of those circumstances, or whose testimony is altogether worthy of credit. With regard to the case now presented, though for obvious reasons I cannot mention the name, yet I think the very lucid and candid statement of facts will speak for itself in a most satisfactory manner, and to it I will only add my full conviction, from a personal acquaintance with the patient, of its being entirely deserving of confidence.

That the question as to how early a fœtus may be considered viable, is by no means settled, I think we have abundant proof in the conflicting evidence brought before the House of Lords, in the case of the Gairdner Peerage, and still more recently in the case of the Rev. Mr. Jardine, related in the Medico-Chirurgical Review. As this last case has been so much before the public, I will, as an introduction to my own case, mention its leading facts. The Rev. Mr. Jardine was the incumbent of a parish in Scotland; he married, and just six months after his marriage, Mrs. Jardine gave birth to an infant, which, though very small, still was strong enough to survive. The consequence of this was, that reports very prejudicial to the reputation of Mr. and Mrs. Jardine were circulated. These were taken up and spread further by some persons who felt a personal hostility to the parties, and the parishioners insisted on the deposition of Mr. Jardine from his office of minister of the kirk. The cause was tried before the Ecclesiastical Court, and the parties were acquitted, the greater weight of medical evidence going to support the assertion, that a

child might be produced within six months after conception, capable of living. I say, the greater weight of evidence went to support this view, but, among about sixteen eminent accoucheurs examined, it was very remarkable what a diversity of opinion was elicited. The shortest period of gestation allowed by any of the witnesses for the production of a viable child, was five calendar months and a half, but the celebrated Dr. Hamilton, who had been a lecturer on midwifery for half a century, declared that he had never known a child to be reared after a shorter period of gestation than seven calendar months, and in his opinion that was the limit of a viable gestation. In this opinion he was also supported by Dr. W. Campbell and others. It is evident, therefore, that on so important a point, and where opinions are so conflicting, every well-ascertained fact is valuable, and I will therefore give the following case in the exact words of the patient herself, leaving it to the profession to decide how far the point in question is to be considered as clearly proved, that the conception did take place at the time that the patient states, and in consequence that the child was, *bonâ fide*, the produce of a six months' conception.

"June 25, 1841.

"My Dear Sir,—I assure you that I feel the most perfect willingness to send you the information that you require, respecting the little delicate baby. I had expected her birth to take place the first week in April, and believed that to be the earliest time at which it ought to happen. She was born on the 11th of January, and her appearance satisfied me that I had not been mistaken. I have had a seven months' child before, but this little creature was evidently much more premature than the other. I think you saw her when a very little growth had taken place; she had for ten days her eyes fast closed, and the nails both on her fingers and toes were only half formed; for two days she was unable to swallow, and for weeks she could only take a few drops at a time, with intervals of eight, twelve, and sometimes twenty-four hours of apparently sound sleep, from which we could not rouse her; and if food (that is milk) was put into her mouth during this sleep, it invariably ran out again, and she seemed to be without the power of swallowing. While this state of things lasted, the baby wasted away till reduced to a skeleton, and we thought every day that the bones would have pierced through the skin. At the end of ten weeks the sleeps became shorter, she took more nourishment in consequence, and began to improve. She never from her birth showed the smallest sign of suffering, never uttered the least cry, and when awaking from her long slumber, as we thought, dying from starvation, would stretch out every limb, and indeed every finger and toe, as if perfectly comfortable. I believe you are aware that she was a twin; the first born (exactly the same size as herself) died after a few hours, in consequence of injury sustained in the birth. I hope I shall have mentioned all the particulars that you are desirous to know, but if not, pray do not hesitate to make any further inquiry. My medical attendant gave me no hope whatever of rearing the child, but I am thankful to say she is now in perfect health, having cut one tooth; backward, of course, when compared with other children, and

very small, but I do not see any reason to fear that she will be deficient, either in strength or intelligence, as she gets older.

"I remain, my dear sir,
Yours very sincerely."

In consequence of the receipt of this letter, I wrote to the lady again, putting several inquiries of a more particular kind, to ascertain as exactly as possible the date of conception, and the grounds upon which she built her belief in the correctness of such date. I received the following answer:—

"My dear Sir,—I am happy to think that I can answer your questions quite accurately, as circumstances combined to impress the time upon my memory.

"The period of which you speak commenced on Sunday the 24th of June, 1838, and lasted through the whole of that week, the usual time of its duration with me. As it has never happened to me to be in that condition during pregnancy, I reckoned from the 1st of July as the earliest possible time. I feel quite certain that I am not mistaken in this date; events occurred during that last week in June which led me to take a great deal of walking exercise, from which I suffered great fatigue and inconvenience. I never had any return of the monthly period until after the birth of the children, having been regular before to a day, and I may say, generally to an hour.

"When I have erred in respect to the time of a confinement, it has been in expecting it too soon, reckoning from the first day possible, as I did in this last case. My first two confinements were evidently at the end of seven months; the first child died from exhaustion a few minutes after its birth, the next is living, but has always been very delicate. I had three children born exactly at the right time, strong and healthy, and then the twins, who I do not think were more, if they were as much as six months.

"I hope I shall have made this little history intelligible to you, and believe me

"Yours very truly."

In conclusion, I beg to mention; 1st, that the patient was not a novice in child-bearing, being the mother of at least seven children, and she states that if she was deceived in prognosticating the time of her approaching confinement, it was in dating the period of conception too far back, which she could not do well in the present case. 2nd, In addition to the early period at which this child was produced, it is important to remember that this was a twin, and therefore its survival is the more remarkable. The child was not dressed till it was three months old, in consequence of its extremely diminutive size. It was during that time wrapped in a covering of wadding, which is now preserved by the family as a curiosity.

I am, Gentlemen,
Your obedient servant,
A. T. S. DODD.

Chichester, Aug. 14, 1841.

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MEDICAL & SURGICAL JOURNAL.

SATURDAY, SEPTEMBER 11, 1841.

In our last number will be found a letter from Dr. Carpenter of Bristol, pointing out a misunderstanding which appears to exist on the subject of the Provincial Schools of Medicine. In compliance with the wishes of the faculty of the Bristol Medical School, as expressed by Dr. Carpenter, we take the earliest opportunity of directing attention to the fact, that the provincial schools are equally recognized by the examining boards in London with those of the metropolis, and that the pupils of the former are found to be in every respect as well qualified as those of the latter. We have already on various occasions advocated the adoption of measures for the improvement of medical education, and since, by the recent proceedings of the Provincial Association at York, additional importance has been given to the subject of qualification, we shall continue to make use of every opportunity which offers for diffusing just views upon this important branch of medical polity. Pledged as the association is to endeavour to obtain an immediate settlement of preliminary medical qualification, according to an uniform and improved standard, it cannot be expected that we should advocate the system or systems pursued in one place, in preference to those followed by another, further than their own intrinsic merits justify. The question for determination is not whether the interests of the provincial schools shall be promoted, or the metropolitan institutions be upheld, but how far the institutions of either kind are suited to the purposes of public utility, and whether the qualifications required can be equally well attained in Bristol, Birmingham, Liverpool, Manchester, Newcastle, &c., as in London, Edinburgh, or Dublin.

The London boards of examination have, as far as they are concerned, virtually conceded that a sufficient medical education can be attained at the provincial schools, by admitting the pupils of such schools to examination. The highly creditable manner in which the examinations have been passed by those who have been educated in the country, has confirmed the propriety of the concession thus made. It is perhaps impracticable to test by any general examination, however searching, the acquirements and qualifications of a number of individuals in every branch of medical

science, within a reasonable period of time; and hence it becomes expedient to require certificates of attendance upon certain courses of lectures, which, taken in conjunction with the general capability shown by the pupil in his examination upon certain parts of the subject, may well be received as evidence of his general proficiency. Could this be determined by examination alone, it would be superfluous to require evidence of any prescribed course of education having been followed. If, then, the provincial schools afford the opportunity for following out the existing course of studies required, or shall be enabled to provide for such a course as may hereafter be required, according to any improved system of education which may be introduced, there is no reason why they should not be placed upon the same footing as the metropolitan institutions of like character. It may be supposed, however, by some, that the opportunities of study afforded are not of the same extent and character as those which the metropolis presents.

As far as regards one branch of the profession, the practice adopted by the College of Physicians, of admitting to their highest grades, without examination, the graduates of provincial schools, only shows that, in the eminent body alluded to, the qualification of whose members, whatever may be thought of their liberality, will not be questioned—little importance has hitherto been attached to metropolitan instruction. We are not, however, disposed to rely upon the example of this institution, nor to take up with the precedent afforded by corrupt and partial practices. The merits of the newly-formed provincial schools rest upon far more substantial grounds. The lecturers in many of these institutions are to the full as well qualified for the duty of affording instruction in the various departments of medical knowledge, as those of London, Edinburgh, and Dublin; and if the opportunities of observing disease in all its forms are not of equal extent with those of London, they are sufficiently so for every purpose of instruction. It is not the number of cases glanced over in a casual walk through the wards of a large and crowded hospital, that conveys valuable information—it is not by the numerical amount or the rarity of objects presented to the view, but by the few well-observed and closely-scrutinized instances of every-day disease, that the student becomes familiar with the progress and treatment of those affections which he will be called upon to treat in practice, and by which he may be most effectually taught those principles, according to which morbid actions are developed, and from which the indications for treatment must be drawn. This truth has been well perceived and acted upon in the Univer-

sity of Edinburgh, where a certain number of cases in the infirmary are selected by the clinical physicians from the general mass of the patients admitted, and placed in wards expressly set apart for their reception. To these patients the attention of the student is especially directed, and it is upon the progress and phenomena of the few selected cases of disease thus set before them, that the clinical lectures are delivered with so much advantage to the pupil. It is obvious that any hospital or infirmary which contains a sufficient number of beds to admit of such a selection being made, affords equal facilities for this the most valuable kind of medical instruction, and consequently, that in any of the larger provincial towns, the requisite opportunities may be attained. These observations equally apply to surgical cases, and in either instance it is of importance, especially for those who are destined to practise in country districts, to be acquainted with the peculiarities of form and progress under which disease of all kinds presents itself in such circumstances. The opportunities for study, then, in the provincial schools, if not so numerous as in the metropolis, are not less advantageous, while the pupils of such schools are admitted to examination at the metropolitan boards, and are found to be equally well qualified.

The decision recently come to at the Liverpool assizes, in the case of Greenough, is one of great importance, as establishing definitively that chemists and druggists have no legal right to practise medicine. The defendant, Greenough, is a druggist, and has been in the habit of practising medicine extensively. The question had been tried before, and, according to the decision of the presiding judge, came within the exemptions of a clause relating to chemists and druggists in the Apothecaries' Act. Upon appeal to a superior court this decision was reversed, and the action being again brought before the Assize Court, a verdict has been obtained by the Apothecaries' Company against the druggist. The observations of Mr. Cresswell, the counsel for the Company, are deserving of attention for the plain common-sense view taken of the reason of the case. It was evident, he contended, that some supervision should be exercised over those who dispense medicine, and that none but those who had undergone a proper examination, and received a certificate of such examination, should be allowed to practise. None were allowed to practise as attorneys in the courts of law, but such as had undergone examination as to their fitness; and it was still more important that those who had the care

of the health of the people should be duly qualified. The clause in the Apothecaries' Act referred to, provides that nothing in the act shall be construed to extend, to prejudice, or in any way to affect, the trade or business of a chemist and druggist, in the *buying, preparing, compounding, dispensing, and vending* drugs, medicine, and medicinal compounds, wholesale and retail; but recognises no right of advising, prescribing, or administering medicine, in the druggist more than in any other person not duly qualified according to the provisions of the act. The unprincipled claim, therefore, set up by certain of the second rate chemists and druggists to the right to practise upon the poor, without regard to qualification, is thus declared to be equally opposed to law as to all equitable and moral feelings.

We are assured that the more respectable druggists are disposed to discountenance these irregular and illegal practices of the inferior members of their body. The decision in the case referred to cannot but strengthen their hands, and we trust that the Apothecaries' Company, now that it appears that they have the power to interfere, will not fail to exercise it in affording due protection to the public from the ignorance of unqualified pretenders in general.

REVIEW.

Three Memoirs on the Developement and Structure of the Teeth and Epithelium, read at the Ninth Annual Meeting of the British Association for the Encouragement of Science, held at Birmingham in August, 1839; with Diagrams in illustration of them. By A. NASMYTH, F.L.S. &c, London, Churchill. 1841.

THE author's object in publishing these Memoirs in their present form, as stated in his preface, is to lay before the public a brief and candid statement of the different points at issue between himself, Mr. Owen, and the Council of the British Association.

It is not our intention, at present, to enter into the particulars of the *questio vexata* of priority, so frequently discussed in the pages of the different weekly medical journals by Mr. Owen and Mr. Nasmyth; but in justice to the last-named gentleman, we cannot pass over in silence the treatment he has received at the hands of a self-elected body of men, whom some people regard as being both liberal and enlightened. The facts of the case are simply these:—A condensed report of the above memoirs, after being carefully examined by the editorial secretary of the British Association, was duly and officially accepted by him, with a view

to publication in the volume of the Transactions of that body. Nevertheless, in defiance of all right and custom, this report was subsequently suppressed, in consequence of certain passages in it being freely commented on by an *interested* member of the council of the association. In justification of himself, Mr. Nasmyth at once offered to reproduce the whole of the original materials, from which the report was made, exactly as delivered at the Ninth Meeting of the Association at Birmingham, and also to afford the committee every facility, so far as he was concerned, of judging as to the real merits of the case. These offers were formally made to the council, through their editorial secretary, but were neither acknowledged by that functionary, nor even taken the slightest notice of. Independent of the want of common courtesy in such conduct, when we recollect that Mr. Owen, a deeply interested party, was from first to last a member of the tribunal before which the question (partly his own) was being investigated, we must say that the proceedings of the council, under such circumstances, was highly reprehensible, and ill calculated to arrive at the truth. Again, the council having taken the matter into its own hands, instead of availing itself of the original documents so frequently offered, proceeded to search for evidence on the accuracy of the paper in question, in *unauthenticated reports*, published in the different weekly journals.

The result of this vague and unscientific mode of inquiry was, as might be expected, not only profitless, but led to the confounding of one subject with another; as, for instance, "the formation of ivory" with "dentition," a topic never even mentioned in any of the three communications. The council at length, in despair of coming to any conclusion in the matter, consented to ask for certain *portions* of the original communications specified by itself, which request was not complied with by Mr. Nasmyth, as he considered that, to judge properly the question at issue, it was necessary not only that all the materials should be present, but that each of them should be considered in its proper place; therefore he would give up all or none. This brought matters near to a close; and by way of a climax to the whole proceedings, this council of learned astutes finally pronounced itself "incompetent to prosecute the inquiry, owing to the delicate physiological considerations" which it involves! and these individuals, forsooth, are the representatives of the science of medicine in the British Isles!

We do not pretend to say whether Mr. Nasmyth has or has not an undoubted right or title to priority in the matter at issue between himself and Mr.

Owen; but this we do say, in the name of truth and justice, that the manner in which the inquiry was conducted by the Council of the Association was unscientific, biassed, and illiberal.

Charges of literary piracy, we shall say, have been brought against an individual by an interested party; an investigation takes place as to the truth of these allegations; that investigation fails to substantiate the charges brought forward; but the committee of inquiry find a loop-hole to escape, by declaring their own *incompetency* for the task they had undertaken; and thus leave the accused, whom they have neither acquitted nor yet condemned, to go forth from their hands with a foul imputation upon his character and integrity. Is this the justice, is this the liberality that an Associate is to receive at the hands of a boasted assemblage of "enlightened men," who, rather than act openly and impartially, were satisfied to stultify themselves in the eyes of the world, by pronouncing their own utter unfitness for a task they had volunteered to undertake? How could any class of men, with the slightest pretensions to integrity, permit an individual to sit at a tribunal with them, and adjudicate in a case, in which he himself was a party deeply involved? Surely they cannot expect the public to place a shade of reliance on any of the *dicta* of a committee of inquiry so constituted.

Mr. Nasymth has now fully and distinctly laid his statement of the case before the public. He was compelled to have recourse to this means of exculpating himself, and of asserting his rights; and at the same time he has given to the council of the British Association an opportunity of invalidating, if they can, any of the several charges of partiality as well as irregularity in their proceedings which are now brought against them; charges which, if true, entitle them to no other character than that of a clique of paltry, juggling sophists.

We now beg to refer the reader to the memoirs themselves for further information in this matter; independently of their controversial interest, they contain much information, as regards the organization of the teeth, of the very highest importance. Each memoir is illustrated with neatly-executed diagrams.

ROYAL BERKSHIRE HOSPITAL.

(Practice of Mr. F. A. BULLEY.)

PASSIVE VENOUS HÆMORRHAGE RELIEVED BY CREOSOTE INJECTIONS.

THOMAS DAY, æt. 28, a pale unhealthy looking man, and suffering apparently from great general debility, was admitted into hospital on June 25. There was a fluctuating swelling occupying the

upper and back part of the right leg, which was thought at the time to be a collection of pus. He stated that about eleven weeks previously, he had been struck on the part affected by the fore-foot of a horse, which he was trying to save from stumbling. He found no inconvenience from it for four or five days, when it became painful, and began to swell. His health, which had before been tolerably good, then began to suffer, and he had felt very unwell up to the time of his admission. After he had been in the hospital four days, the swelling was opened by a very small incision, and instead of pus, about three parts of a pint of semi-fluid coagulum of a putrid offensive odour were discharged. It afterwards continued to discharge a considerable quantity of the same kind of grumous blood daily, but subsequently it became more fluid and mixed with pus, giving it a brownish appearance. The discharge of coagula had now ceased. On passing a probe into the cavity, I found the cellular membrane, to some extent around the incision, in a putrid and easily broken-down condition. The examination caused a trifling venous hæmorrhage; the limb was banded with a view to procure agglutination of the sides of the cyst. In the morning, generally he complained of tightness in the swelling, which was relieved by letting out the fluid which had collected in the night. Various astringent injections were used, but without producing any great change in the part.

Ioduret of iron, two grains;
Extract of gentian, three grains;

A pill to be taken twice a day.

Full diet, with a pint of porter daily. He subsequently took quinine, with infusion of roses.

July 26. The remedies employed have not succeeded in effecting a diminution of the quantity, but they have altered the quality, of the discharge, which has now become almost transparent, or sero-gelatinous. He is still occasionally liable to discharges of semi-liquid blood.

29. All other means of suppressing the discharge having been found to fail, I ordered an injection containing $\frac{3i}{j}$ of creosote to $\frac{3xij}{j}$ of water, to be thrown into the cavity of the abscess, and afterwards immediately pressed out, two or three times a day. The distension from the injection gave him pain. A short time after its use the discharge became more transparent, then serous, and at length entirely ceased.

September 10. He has had no return of the discharge since last report, but there still remains a trifling stiffness in walking, and, after much exercise, the limb generally becomes slightly swelled. As his health appeared to be fully restored, he was discharged from the hospital and made an out-patient.

A few months after his discharge he again fell into a bad state of health, and became affected with caries of the facial bones, which went on unchecked, until almost the whole of them had become implicated in the disease. After this I lost sight of him, but I have every reason to believe he died of his complaints.

It is evident that in this case the continuance of the hæmorrhagic disposition was the result of a peculiarly bad state of the system favouring such a condition; for it was observed, that as the health of the patient improved, the sanguineous discharge

became diminished. Whether a persistence in the general tonic treatment might alone have occasioned a cessation of the serous discharge which followed, I do not know, but having tried almost every local means without avail, I was struck with the immediate good effect produced by the creosote; and from what I have subsequently noticed of its effects in similar cases, I should say it was a valuable remedy, and not unworthy a trial, if other means should be found to fail.

FRACTURE OF THE OUTER CONDYLE OF THE HUMERUS, AND OF A PORTION OF THE OLECRANON.

Robert Weller, æt. nineteen, admitted November 13th, stated, that a fortnight and three days ago, he fell from a scaffold where he had been working as a bricklayer's labourer, a distance of thirty feet, and pitched heavily on the elbow-joint. On rising, he found the joint extremely painful, and it shortly became greatly swelled. Thinking the accident to be only a sprain, he did not apply for medical advice, but satisfied himself with applying hot fomentations, and keeping the arm in a bent position in a sling. On admission, the following signs of more extensive injury presented themselves. On feeling the joint more completely, and pressing with some force with the thumb upon the outer condyle, a movement of this portion of the fractured bone could be plainly felt, the fracture apparently extending into the joint. It had, to all appearance, become partially united to the body of the bone by ligament and some osseous deposit. There was tolerably free movement of the joint; rotation of the fore-arm was perfect. From the length of time which had elapsed since the accident, and thinking that consolidation had proceeded so far as to allow of gentle passive motion being used, I directed the arm to be kept in the most useful position, in case of ankylosis, and to swing it, with a weight appended to it, during half an hour twice each day. In addition to the injuries described, a portion of the olecranon was broken off and separated from the shaft, but not to any considerable distance; complains of great pain in this part on complete extension.

19. Movement of the fractured condyle is not felt, except when the arm is rather forcibly rotated. There is no diminution in the power of flexion and rotation, which movements are performed without much pain, but he still complains of uneasiness about the olecranon when the arm is extended. An opiate embrocation was directed to be applied to the joint.

20. He has not quite so much power of moving the arm: ordered him to keep the arm more flexed, and to have friction to the joint.

28. Motion of the arm improved by the friction and passive motion. Thinks he has experienced great relief from a liniment composed of the Petroleum Barbadiense and camphor, which he has been using for a few days past. Ordered to continue this, and to bathe the arm daily in hot salt water and bran twice daily, for a quarter of an hour at a time.

Dec. 2. Feels great relief from the bath; union of the fractured bone now apparently completed; continue remedies.

17. He has been using the means prescribed since last report, with all the benefit which could be desired; and as he now suffered no pain in per-

forming the usual movements of the joint, which he did with tolerable ease, he was discharged from the hospital.

Jan. 15. He called to see me at the hospital, and expressed himself as having a perfect use of the joint, only he said he could not extend it quite so perfectly as before the accident.

The preceding case was probably one of fracture, partly within and partly without the joint, and illustrates the expediency of using passive motion as early as possible in these cases. From the length of time that had elapsed since the injury, it is likely that bony union had proceeded in that part of the fractured portion not included in the joint, to such an extent as to render it quite safe to commence gentle flexure; although it was necessary, in doing so, to use great circumspection, for fear of producing irregular osseous union, and subsequently ankylosis.

I may mention that the portion of the olecranon which had been broken off became completely united, and caused no impediment to the free movement of the joint, except that it might in some measure have produced the difficulty of completely extending it, which I mentioned at the close of the report.

INFLAMMATION OF THE URETHRA, FOLLOWED BY ABSCESS IN PERINEO.

Thomas Crutchfield, painter, admitted June 10th. The following were his symptoms on admission. He had swelling and tenderness in the perineum, which had been gradually coming on for about a week. There was no indication of the formation of matter: he had had gonorrhoea for a fortnight, to a very severe degree. When he had had it for a week, without using any means to check it, he found the discharge suddenly cease, and he became affected with shivering fits and general febrile disturbance, at the same time the perineum began to swell and feel painful. The pain and swelling had increased up to the time of his admission into the hospital. Twelve leeches to the perineum; linseed poultice.

11. Pain and inflammation continue; there is still no sign of matter having formed; bowels very much confined. Castor-oil, one ounce; to be taken immediately; continue poultice.

13. Pain in the swelling extremely urgent; has had two or three very severe shivering fits during the night; matter is now clearly discernible to the feel; an incision was made into the abscess, and about an ounce and a half of pus, mixed with blood, evacuated.

15. He has had no gonorrhoeal discharge since the first appearance of inflammation in the perineum. The abscess discharges scarcely at all; the edges of the wound have sloughed a little, so as to expose its cavity, which is lined with healthy granulations.

16. Less discharge from the cavity of the abscess; directed the cyst to be frequently injected with hot water, and the following ointment to be applied.—Resin cerate, common cerate, of each half an ounce; to be applied frequently.

25. Has been gradually improving since last report; feels weak from lying in bed. The cicatrization of the abscess is almost completed; he has no constitutional symptoms. Dilute sulphuric acid, one drachm and a half; infusion of serpen-

taria, twelve ounces; three table-spoonfuls thrice a day.

July 10. Has been gradually improving since last report. The abscess being now completely healed, and the patient in other respects appearing to have recovered his usual health, he was discharged from the hospital.

The above is a case of inflammation and abscess of the perineum, the direct result of the extension of gonorrhoeal inflammation to the part. I had just previously seen two cases of the same kind, in one of which the abscess had burst into the urethra, and caused a troublesome urinary fistula; in the other, the abscess had diffused itself extensively into the surrounding cellular tissue, and occasioned fistulous openings, which required to be freely divided. Probably the best treatment of such cases would be an unlimited application of leeches to the perineum, on the first occurrence of the swelling, and the introduction of a bougie smeared with balsam of copaiba, with a view to restore the urethral discharge, which, in the cases I have seen, has, on the occurrence of perineal inflammation, been found to disappear.

TRANSVERSE FRACTURE OF THE PATELLA.

Richard Jenkins, æt. 33, inspector of rails upon the Great Western railway, was admitted July 16, on account of a transverse fracture of the left knee-pan. In March, 1839, he was so unfortunate as to fracture the right patella, through falling backwards and losing his balance, when the bone was broken by muscular force, while the knee was bent. He states that he did not strike the bone in any way, nor did he even fall to the ground, but recovered himself, and was not aware of the accident, until, in attempting to walk again, he found the knee, as it were, give way under him. On this account he was admitted into St. George's Hospital, where he remained above two months, the fracture having been treated on the ordinary inclined plane, the heel being elevated. No bandage had been used to keep the broken portions in apposition, the position alone being found sufficient for this purpose. During the whole time he suffered excruciating pain in the heel and on the outer side of the leg, from pressure, but, at the end of the period, the fractured portions of the bone were found to be united by ligament, and he could lift it up from the floor into a chair by his own efforts. Being now considered cured, he was ordered to keep the limb quite straight for the present, and was provided with an apparatus to buckle round the knee, for the purpose of preventing elongation of the uniting ligament; he was discharged from the hospital. He did not attempt to flex the limb, and the fractured portions of the bone remained in perfect contact. Seven or eight weeks after his discharge, while riding on a load of transoms, resting the leg upon a piece of timber, by some accident the timber rolled from under him, and the knee became suddenly and violently flexed, and on examination he found that the fracture had become separated to the extent of about two inches. For this he was confined to his bed four or five days, no endeavour being made to bring the fragments together. After this he got out and walked again, but with diminished power of extending the leg, and a constant tendency to fall forwards, from which he had great difficulty

in saving himself. He at length had a fall, and in consequence the knee became greatly swelled and very black, and it was afterwards found that the fractured portions had become separated to the extent, when the limb was bent, of about six inches. He had then lost all power of extending the leg, and was obliged to walk with a stick, swinging the injured limb before him in so doing. After this, the limb frequently gave way, and at last, in trying to save himself by the other leg, the other patella was broken, the fractured portion being separated to the extent of about two inches, and for that he was admitted into our hospital. The following was the treatment adopted; and this, as being somewhat new, may perhaps be worthy of a trial in similar cases:—The limb being elevated on pillows, two or three days were allowed to elapse, in order that the inflammation which had occurred in the part might be subdued. This being effected, leather straps were buckled above and below the knee, having small bolsters of stuffed wash leather on their upper sides, which were so made as only to press upon these separated bone. This construction of the bolsters prevented a general constriction of the limb, and allowed the blood to flow freely through the superficial veins. The fragments being then brought into apposition, the straps were somewhat tightly buckled, and united to each other by other straps passing from one to the other. Bearing in mind the pain the patient had formerly suffered in the treatment of the other fracture, through the continued pressure on the heel, I thought it might be advantageously varied by suspending the limb in an elevated position, somewhat in the manner suggested by Mr. Luke, for the treatment of fractured legs. This was done in a very simple manner. A long splint, being placed underneath the knee, was fixed to the limb by a bandage rolled round it, at a considerable distance above and below the joint. A single broad webbing band was then passed under the tendo Achillis, and it was by this means suspended to an ordinary fracture-cradle.

In this position it was allowed to remain unmoved for about six weeks, when the fracture was found to be firmly united, and now, two months from the date of the accident, the patient is able to walk about the ward, and to bend the limb slightly, without any apparent tendency to elongation of the broken portions of the bone.

A great variety of opinions have been entertained respecting the cause of osseous union; so seldom following transverse fractures of the patella, although it almost always takes place in those which have a perpendicular direction. This fact has led surgeons of the present day to think that the ligamentous union, so commonly observed, cannot be the result of any particular relation of this bone with the knee-joint, or of its not being covered by muscular tissue, or of any of those causes which are said to operate in preventing union of the fractured neck of the femur; for if it were so, the same effects would follow in both the transverse and perpendicular fracture; but this not being the case, it is fair to infer, that the difference arises from the greater separation of the fragments in the transverse fracture, and the greater difficulty of producing their early and exact approximation. The apparatus I made use of in the preceding case seemed to effect this com-

pletely, scarcely any force being necessary to bring the fragments into apposition, the position alone appearing to be sufficient for this purpose; and if I had thought of this contrivance earlier, I might have applied it on the first occurrence of the injury, and so have almost insured an osseous union. However, I am not without a hope that bony union may still occur, the junction appearing to be remarkably firm and close; and to give the fairest chance for such a good result, I have ordered the limb to be kept continually in a straight position for the present.

ACADEMY OF SCIENCES.

(Paris, August 23 and 30.)

URANE.—M. Peligot states that this is not a simple metal, but an oxide, from which he has extracted the base, which he calls *Uranium*.

POISONING WITH ARSENIC.—MM. Fordos and Gelis announce that on employing various specimens of purified zinc in Marsh's apparatus, they obtained a considerable quantity of hydro-sulphuric acid, although the zinc was free from the slightest trace of sulphur; this depends, they think, on partial reduction of the sulphuric acid by the nascent hydrogen.

Should the fluid operated on contain arsenic, a sulphuret of arsenic may be produced, and by remaining at the bottom of the vessel escape the notice of the experimenter.

URIC AND HIPPURIC ACIDS.—M. Leroy d'Etiolles claimed, in favour of Mr. A. Ure, the discovery of the power possessed by benzoic acid, of transforming uric and hippuric acid, as recently described by M. de Bouys. It appeared, however, that the latter gentleman had distinctly attributed the discovery to Mr. Ure.

ABSORPTION OF MERCURY AND ITS PREPARATIONS.—M. Mialhe asserts that solutions of the hydrochlorate of ammonia, and other alkaline chlorates, possess the property of partially converting calomel, and even mercury, into corrosive sublimate. Now as the different fluids of the human body contain chloride of sodium and ammonia, united or not with hydrochloric and other acids which facilitate their action on mercury, it seems to follow that whenever we take any preparation of this metal, a constant quantity is converted into corrosive sublimate.

FOSSIL FOOD OF THE CHINESE.—M. Payen, having analysed this earth, to which we have alluded in a recent number, found that it was composed of silicium, 50.6; aluminium, 26.5; magnesia, 9.1; lime, 0.4; oxide of iron, 0.2; water and organic matter, 13.2; with a small proportion of nitrogen. M. Payen thinks that it may possess some nutritive properties, but if these were proportionate to the quantity of nitrogen, they would not exceed that possessed by 1-100th part of the weight of gluten of corn.

SHORTSIGHTEDNESS AND ITS CURE BY OPERATION.—M. Bonnet of Lyons addressed a long memoir on this subject, to which we may

recur in our next number. He thinks that the power of accommodating vision to short distances depends on compression of the eyeball by its muscles; that acquired myopia (shortsightedness) is occasioned by this compression becoming permanent, and that the pain experienced when we look at small objects very closely, arises from the pressure being carried to such a degree as to be painful.

The compression, then, is diminished by division of one or more of the muscles of the eye. M. Bonnet selects the inferior oblique, near its orbital insertion, as being the one most easily got at, and less liable to accidents.

He has performed this operation on ten patients: in two, one muscle only was divided; in eight, both inferior oblique; the former experienced little benefit; in six of the latter, the range of vision was doubled. The most important improvement, however, took place with respect to the pain and fatigue of the eyes; five patients out of six were completely cured of all unpleasant sensation and pain.

ACADEMY OF MEDICINE.

(August 31.)

AMPUTATION OF THE HIP-JOINT.—A patient was affected with spontaneous gangrene of the leg: the limb was removed at the knee-joint, but the gangrene extended to the leg, and eschars formed on the sacrum and over the trochanters. The author now removed the lower extremity, at the hip-joint, according to M. Larrey's method. The femoral artery was found obliterated by a fibrous clot, but it was thought prudent to tie it. The patient rapidly recovered.

FIBROUS TUMOR, OCCUPYING BOTH SURFACES OF THE SCAPULA, REMOVED WITH SUCCESS.—M. Lisfranc presented a patient, 30 years of age, on whom he had recently performed a very difficult and severe operation. This man had a large broad tumor on the external surface of the right scapula. M. Lisfranc first made a crucial incision over the tumor, and separated it from its attachments to the bone, but then found that it extended underneath the scapula; hence it became necessary to turn this bone almost completely upwards, making a hinge of the superior border. Even now it was found that the fibrous mass extended round to the region of the clavicle, and the surgeon was compelled to extirpate this portion, by twisting it off with the fingers. The patient is now quite well, and enjoys free motion of his elbow-joint.

QUEEN'S CLINICAL HOSPITAL, BIRMINGHAM.

ON Saturday last a special meeting of the Council of the Royal School of Medicine was held in the chapel of the Queen's Hospital, which was attended by the respected and venerable president, Dr. Johnstone, the Right Honourable the Earl Howe, William Room, Esq., (low bailiff,) Joseph Webster, Esq., J. E. Piercy, Esq., Mr. E. T. Cox, Mr. G. B. Knowles, Mr. Langston Parker,

Dr. Eccles, Dr. B. Davies, Dr. Melson, Dr. Percy, and other gentlemen interested in the establishment of the hospital. The object of the meeting was not only to appoint the medical officers, subject to the confirmation of the governors of the hospital, at the annual meeting, but also the chaplain. It will be seen by the report that the council have resolved that the appointment of the chaplain shall be delegated to the Rev. Dr. Warneford.

Previous to commencing the business of the meeting, a considerable number of ladies, on the invitation of J. E. Percy, Esq., were favoured with a private view of the bust of the Rev. Dr. Warneford, the zealous promoter and munificent founder of the institution, which is intended to be placed in the board-room of the hospital. The bust, which is the production of Mr. P. Hollins of this town, is of pure white marble; it is an admirable likeness of Dr. Warneford, and was pronounced by Earl Howe and the gentlemen present to be a most finished and beautiful work of art. His lordship and the other visitors afterwards inspected the various wards and rooms of the hospital, with the arrangements of which they expressed themselves highly gratified.

At half-past two o'clock the council assembled in the chapel, which is situated on the first floor of the hospital, easy of access to the convalescent patients from all parts of the building.

The president, Dr. Johnstone, on taking the chair, made a few observations in reference to the original foundation of the Queen's Hospital, and on the necessity of clinical instruction, which ought to be the great and important end of all medical education. To the originator of the present institution, (Mr. Sands Cox,) the town of Birmingham was under the deepest obligation; and when they considered the short time that had elapsed since he first not only brought the subject before the notice of the public, but had also brought the plan to perfection—and when they also considered the difficulties which he had to encounter, the meeting would agree with him that a work of such magnitude could not have been accomplished by any individual of ordinary mind or ability. (Applause.)

—The chairman proceeded to remark, that it was not alone to the establishment of the Queen's Hospital that they were indebted to Mr. Sands Cox, for they could not forget the energy and devotion he manifested in the establishment of lectures and the formation of the Royal School of Medicine and Surgery. The course of study had not been confined to mere medical and surgical knowledge, but it had been extended so as to include those different departments of science so essential to the completion of a sound medical education. (Applause.)—With respect to the institution of the Queen's Clinical Hospital, he knew (as he had already observed) no plan of medical instruction which could be perfect without it. It is true that a less perfect system of education might be adopted, and was not unfrequently pursued; but he need not remind the gentlemen present, that in institutions of this kind the medical student possessed opportunities of instruction of the most effective character. It was the observation of Lord Bolingbroke, that "philosophy teaches by example;" but how much more was example necessary in the study of the various diseases incident to our nature, when no description could convey an

accurate impression of the effects of the multiplied and minute difference of character in diseases, modified, as they often were, by moral and mental influences, only to be pointed out in the living subject? Intimately connected as the Birmingham Royal School of Medicine and Surgery was with so invaluable an institution as the Queen's Clinical Hospital was destined to become, and supported as it was by the patronage of royalty—by the countenance and support of her Majesty the Queen Dowager, and by the first of the nobility of the land—by men not more respected for their rank and titles than for their highly cultivated minds, their benevolent principles, and their uniform attention to the public good,—(applause,)—they could not doubt that both institutions would attain a degree of eminence that would confer a lasting honour on the town in which they lived. (Applause.) Indeed, he looked forward, at no distant time, to the day when Birmingham, (with the advantages of the grammar-school,) instead of being distinguished as the toy-shop of Europe, would be as remarkable for its numerous institutions devoted to the cause of science and the interests of humanity, as for its excellence in the production and development of manufacturing skill. (Applause.) The venerable chairman concluded by reading a letter from the Rev. Dr. Vaughan Thomas, who was prevented, by the illness of a near relative at Oxford, from witnessing, as a trustee, that day "*the result of so many judicious plans and charitable purposes; but though absent, he would be present in thought and best wishes, and in every disposition to promote the great and honourable undertaking.*" The chairman alluded to the deep debt of gratitude the hospital was under to the Rev. Dr. Warneford, not only for munificent donations, but also for the kind interest which he had taken in the plan and progress of the building, and for the many valuable suggestions which he had thrown out for the more perfect adaptation of the structure to the purpose to which it was to be devoted.

The right hon. the Earl Howe, in rising to propose the first resolution, a vote of thanks to the Rev. Dr. Warneford, for the numerous benefits which he had conferred upon the Royal School of Medicine and the Hospital, by his counsels as well as by munificent donations, and requesting that he would still farther promote their usefulness by the appointment of a clergyman of the Church of England as chaplain, observed, that it was not his intention to occupy the time of the council for more than a few moments; but when he recollected that it was now barely thirteen months since he had the honour of being himself instrumental in laying the foundation-stone of their institution, he could not avoid expressing the great delight which he experienced, and the satisfaction he felt, at seeing the benevolent plans of its originators so promptly and successfully accomplished. He had had the pleasure of inspecting the whole of the building, and it was impossible that any institution could be better arranged for the persons who might happen to be its temporary occupants; and he sincerely trusted that the foundation of the Queen's Hospital would be but the beginning of many similar establishments which would prove honourable and useful to the town of Birmingham. (Applause.)

Mr. Edward Arnfield seconded the resolution, which was unanimously adopted.

Earl Howe proposed the third resolution, ten-

dering the warmest thanks of the meeting to their respected president for the invaluable assistance and unwearied support which he had given to the institution and completion of the hospital, and requesting him, in conjunction with Dr. Booth, to accept the appointment of honorary physician. His lordship also moved, that the senior physician and surgeon of the General Hospital, Dr. Male and Mr. Wood, and the senior surgeon of the Town Infirmary, Mr. E. T. Cox, be invited to accept appointments as honorary medical and surgical officers of the institution.

Mr. W. H. Osborn seconded the resolution, which he was sure would be passed with the warmest acclamation by the meeting. The appointment of gentlemen of long standing and eminence in their profession as honorary medical and surgical officers, in addition to those gentlemen on whom the active and ordinary duties of the hospital would devolve, augured well for the liberal spirit on which the hospital had been founded, and must tend to the prosperity of the charity.

The resolution was put to the meeting by Lord Howe, and passed with acclamation.

Dr. Eccles said he had been deputed by the lecturers of the Royal School of Medicine and Surgery to lay before the council of the Queen's Hospital, at the earliest opportunity, certain resolutions which had been adopted in reference to the appointment of physicians and surgeons to this institution.

The resolutions having been read, the Low Bailiff begged to propose—subject to the confirmation of the governors at the annual meeting—that Dr. Birt Davies, Dr. Percy, and Dr. Melson be appointed physicians, and that Mr. W. Sands Cox, Mr. G. B. Knowles, and Mr. Langston Parker, be appointed surgeons to the Queen's Hospital.

The resolution was seconded by Mr. Thomas Uffill, and unanimously adopted.

J. E. Percy, Esq., proposed a resolution of thanks to the Rev. and Worshipful Chancellor Law for the valuable services which he had rendered to the charity, and for the interest which he had at all times evinced in the prosperity of the Royal School of Medicine and Surgery, and requesting that he would be pleased to preach a sermon for the benefit of the hospital on the occasion of the opening of its wards.

Joseph Webster, Esq., seconded the resolution, which he considered an act of justice to the Rev. Chancellor Law, while at the same time he believed the obtaining of his valuable and most important services for the occasion referred to would be conferring a great benefit on the institution.

The President, in putting the resolution, paid a well-merited tribute to the eminent services rendered to the institution by the Rev. Chancellor Law, not only by his able advice and counsel, but by his purse, and only deeply regretted that the state of the health of the Bishop of Bath and Wells deprived them of the services on that day of his excellent son, who so worthily followed in the footsteps of his respected and venerable father.

The Rev. Josiah Allport, in proposing a vote of thanks to the Noble Earl Howe for his kind attendance that day, and for his lordship's munificence and valuable patronage of the Hospital and Royal School of Medicine, observed, that he was sure the resolution would meet with the warm and

unanimous concurrence of the meeting. Were it not that the distinguished individual to whom it referred was present, he might perhaps be induced to enter into explanations and statements to prove how well this tribute to his lordship was deserved. He would, however, waive this, and content himself with merely submitting the resolution for the approbation of the meeting. (Applause).

The resolution, having been seconded, was passed with acclamation.

Lord Howe, in acknowledging the very flattering manner in which the resolution had been proposed and received, said, that he could lay claim to nothing beyond a sincere good will towards their institution. Before, however, he took his departure, for he would be obliged immediately to leave them, he would venture to throw out as a suggestion to the committee and managers of the hospital, viz. the training and instruction of persons who might be employed, when their services were required, as sick nurses, (Sisters of Charity,) not only in the institution, but in private families in the town and neighbourhood. An establishment, under the immediate patronage of the Queen Dowager, for this purpose, in connexion with many charitable institutions, had been recently formed in London, in which persons were instructed in the duties and proper attentions required by the sick. Of the value of the persons so instructed he could himself, from personal experience in his own family, speak. The Queen's Hospital was, he was aware, much too young at present to carry a similar plan into operation, but he merely mentioned the subject in the hope that it might be made matter of *early consideration*. His lordship then withdrew, being obliged to leave town by an early train.

The President, in reference to the subject alluded to by Earl Howe, expressed a hope that one of the first subjects that would engage the attention of the committee of council would be that noticed by his lordship.

At the close of the proceedings, a vote of thanks was passed to the chairman, for his kindness in presiding over the business of the day. Dr. Birt Davies, by whom it was proposed, said, he would avail himself of that opportunity to return thanks upon the part of the medical officers just named, for the honourable trust confided to them. It would to all of them ever be a matter of most sincere and pleasing congratulation; and it could not fail to enhance the value of the trust, and add to instead of subtracting from their self-respect—as on such occasions too often happened—that the appointments to the Queen's Clinical Hospital, by the fundamental laws of the institution, are based solely upon preceding endeavours to exhibit industry and zeal in the class-rooms of the Royal School of Medicine, and not upon the urgency of a personal canvass, nor upon the predilections of the lay governors, who must of necessity be but imperfectly informed in most cases in regard to medical attainment, however gratifying their favourable consideration in other respects might be. In the name of his colleagues he would assure the council that no pains should be spared by them or by himself to forward their benevolent intentions, and to make the medical department of the Queen's Hospital respond to their warmest wishes.

Dr. Johnstone, having left the chair, said that there was one individual to whom their thanks

were especially due, and without whose energy and philanthropic exertions they would not have been called together that day. He wished the duty of proposing the resolution had devolved upon abler hands, but he could not deny himself the pleasure of moving the thanks and warmest acknowledgments of the meeting to Mr. Wm. Sands Cox, for his eminent services to the institution—services without which it would never have been originated at all.

Joseph Webster, Esq., in seconding the vote of thanks to Mr. Cox, said that the town owed a deep debt of gratitude to that gentleman, who had by his noble exertions raised a monument which would be remembered as long as Birmingham existed.

The resolution (which was proposed during the absence of Mr. Sands Cox) was passed in the most cordial and enthusiastic manner, after which the meeting separated.

It was understood that the arrangements for the reception of "free out-patients," and of those visited at home, will take little more than a week to complete; very shortly after which, the midwifery department will be proceeded with, in conformity with the fundamental regulations, "for the benefit of poor lying-in married women, who shall be attended at their own homes."—*Aris Gazette*.

FOREIGN MEDICAL LITERATURE.

PUERPERAL FEVER.

DURING the year 1840 a great number of cases of puerperal fever occurred at the Hôtel-Dieu, in the words of M. Recamier; a detailed account of the principal cases has been furnished by his *interne*, M. Bourdon, in the *Revue Médicale*. M. Bourdon observes, as one of the most remarkable points in the history of the disease, that although its progress and symptoms were the same in all cases, yet the lesions discovered after death were very various. When, in addition, to this circumstance, we reflect on the fluid state of the blood, and the softening of nearly all the organs, without trace of inflammation, we are authorised (says M. Bourdon) to regard this disease as a general affection, connected with some alteration of the blood, which gives rise to the same train of symptoms, although the material lesions resulting from it may be very diversified.

The following is the train of symptoms noted by M. Bourdon; the only variation of any consequence which they presented, was one of intensity. The general appearance of the patient was very peculiar and striking; at first the countenance was sunken and expressive of pain or anxiety; towards the end, it was insensible and expressive of prostration, especially if the disease were about to terminate fatally. The eyes became more or less hollow, and surrounded by a dark circle; the skin of the face was pale, dull, and earthy looking; presenting, in fact, a tint altogether peculiar to this complaint. General weakness and prostration of strength constantly existed, though at various degrees.

On questioning the patient about the origin of the disease, it was always said to have commenced with more or less shivering; and this symptom,

with a feeling of general uneasiness, sometimes recurred during the following days, and was proportionate to the subsequent violence of the fever; whenever the shivering was intense at first, prolonged, and recurred several times, the disease terminated fatally. The shivering was soon succeeded by heat of skin, which sometimes alternated with it; the skin was hot and dry, covered, at certain periods, with perspiration; the latter was a favourable symptom, when the general state of the patient improved at the same time; but when cold and viscid, it announced the near approach of death. The pulse was always frequent; in two cases a little hard and full at the commencement; but in all the others it was constantly small, compressible, and undulatory.

Several of the patients complained of headache; a more constant symptom, especially towards the end of the disease, was a low, loquacious delirium, which was commonly a bad sign.

Pain of the abdomen was a constant symptom; but it varied in seat and intensity. Generally speaking, it was severe, and occupied the hypogastric region; in some cases it disappeared suddenly, without any diminution of the tympanitis or improvement of the symptoms. This sudden alteration of sensibility was always a fatal sign. The abdomen was in all cases more or less tympanitic, but not more so in one form of the disease than in another. Some symptoms of disorder of the intestinal canal were, also, usually observed; these were dryness of the tongue, thirst, vomiting, diarrhoea; liquid brown stools, of a fetid smell, always announced a fatal termination. Hiccup occurred in three cases out of ten, and was absent in several where we had reason to suspect inflammation of the peritoneum. Involuntary discharge of the fæces and urine was always a bad sign.

The lochial discharge was either arrested or diminished in every case, the former occurrence being the more dangerous; the breasts were always more or less flaccid. In dangerous cases, and particularly towards the end of the disease, the respiration became so quick and difficult that it was astonishing no other lesion was found after death, except some congestion at the back of the lungs. In concluding his remarks on the symptoms, M. Bourdon observes, that it was impossible, from any particular symptoms, to determine what peculiar form of the disease was under treatment; and he believes that in the present state of our knowledge this diagnosis is excessively difficult, if not impossible.

As to the prognosis; when the pulse became frequent, soft, and recovered its strength a little, while the skin, at the same time, got moist, the abdomen less painful, and the countenance better, then a favourable termination generally occurred; but when the pulse, without losing any of its frequency, became small, depressed, and undulatory, the tongue dry, the vomiting and diarrhoea obstinate, the abdomen highly tympanitic, the danger was great; and death was certain whenever the pulse continued to become more and more feeble, with cold viscid sweats and involuntary evacuations.

The alterations found after death were various, although, as we have before observed, the progress and symptoms of the disease were the same in all cases. In one case the only morbid appearance that could be discovered was a slight effusion of

turbid reddish serum, containing some flocci, into the cavity of the peritoneum. Many pathologists regard this as sufficient evidence of the existence of peritonitis; but, even granting the presence of the latter, how could it explain the highly dangerous symptoms and rapid death of the patient.

In a second case, all the signs of uterine phlebitis were found, but on the most minute examination no trace of pus or metastatic abscess could be discovered in any of the vessels or tissues of the body.

In a third case were found all the degrees of softening of the uterus which constitute the form described by MM. Danyau and Duplay, under the name of gangrenous metritis, and by Boër under that of *putrescentia uteri*; the whole of the internal surface of the uterus was softened, and the walls perforated by gangrene: the peritoneum was inflamed, with effusion of dark, fetid pus; the sub-peritoneal tissue and the adjacent muscles were also infiltrated with the same kind of pus. Finally, most of the organs were in a state of softening, and the small intestines contained several ulcers without surrounding inflammation.

In a fourth case were observed most of the anatomical characters of the pyogenic fever of M. Voillemier; pus was found in the subperitoneal tissue of the uterus, and in the cellular tissue of the limbs, without any trace of peritonitis, inflammation of the uterine veins or lymphatics, or metastatic abscess, in any of the organs. Lastly, in a fifth autopsy were discovered collections of pus in the cellular tissue of the pelvis, with softening of the organs, and particularly of the right lung.

In addition to the morbid appearances above noticed, some others were constantly observed: a layer of dark-coloured fetid detritus covered the internal surface of the uterus; the quantity and fetidity of this matter was proportionate to the volume of the uterus, and it probably depended on some modification of the lochial secretion. In all the cases the blood contained in the heart and vessels was remarkably fluid, and this condition of the vital fluid does not seem to have sufficiently attracted the notice of pathologists. A third lesion, also constantly found, was softening of the parenchymatous organs, and even of the heart itself; in two cases the mucous membrane of the intestinal canal was softened, and it is probable that the ulcers observed in one of the cases depended on the same cause.

As to the treatment, M. Bourdon observes that no remedy was found beneficial in dangerous and severe cases, or when employed for patients admitted into hospital in a desperate state. In one of these cases much relief was obtained by the use of a bandage and compresses over the uterus, which was very voluminous. A few hours afterwards, the size of the organ was reduced by one-half, and the expulsion of the fetid secretion contained in it was much facilitated. Blood-letting had no good effect in the few cases in which it was tried. In a certain number of cases, complicated with bilious symptoms, the use of ipecacuanha was highly beneficial, always mitigating the symptoms and exciting perspiration.—*Revue Med.*, June, 1841.

VEGETABLE EXTRACTS.

MR. EDWARD BENTLEY describes his method of obtaining the most powerful vegetable preparations in the following terms:—

"In the preparation of extracts, the main point to be attended to is equality of temperature.

"My observation on this point has been extensive; and I am fully persuaded that a temperature above 120 deg. F. is sufficient to volatilize the principle upon which their efficacy depends.

"The manner in which the leaves are dried equally affects the strength of the tincture. The plan which I have adopted and am about to detail, and which has elicited such valuable opinions from those best acquainted with the subject, induces me to believe it worthy of the particular attention of the profession. It is by preserving the expressed juices of the plants in the following manner:—

"The plant being carefully selected from its healthy character and full maturity, the leaves, stem, and, when advisable, the root, are well bruised in a marble mortar, then placed in a powerful wooden press.

"The juice thus collected is allowed to stand, in order that a deposition of feculent matter may take place, which usually does in very large quantities in the course of twenty-four hours. Alcohol, 56 deg. overproof, is then added in the proportion of four fluid ounces to every sixteen fluid ounces of the juice, which is quite sufficient to render the preparation complete, and throw down any mucilage which may be mechanically suspended.

"After standing for twenty-four hours, the juice filtered through bibulous paper, (that made from wool is the best,) will be found to retain the whole virtues of the plant for any length of time.

"It may be as well to state that the best time for gathering the plant is just as it is coming into flower."

The juices which Mr. Bentley has thus prepared, and which have been put to the test of experience, are those of *Conium*, *Digitalis*, *Belladonna*, *Hyoscyamus*, *Taraxacum*, and *Artemisia Vulgaris*.

NOTE FROM DR. MAUNSELL.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—In your paper of the 21st inst. I find an anonymous letter, containing a medley of very hard words, designed (if I rightly understand the objects of the writer) first, to signify disapprobation of my conduct, in having, as editor of the Medical Press, presumed to explain the cause of the failure of the dinner of the Provincial Medical Association, at the late meeting at York; and secondly, to inform the world of medicine that Dr. Hastings was not, on the occasion referred to, 'intemperate and vulgar;' and that his attempt then to stifle discussion should not be characterised as 'bawling and bombast.'

The basis of the anonymous writer's argument appears to be the fact, which he accuses me of mistaking, that "the dinner company was not two-thirds less than it was last year at Southampton."

What I said was, that it was "nearly two thirds less;" and I am quite satisfied with the anonymous writer's admission, that the attendants at the York dinner amounted to 70. I have reason to believe they did not reach that number; but even if they did, the attendants at the Southampton dinner were not less than 170.

The consideration of any particular line of conduct, as 'vulgar,' 'brawling,' or 'bombastical,' I apprehend to be merely a matter of taste; and far be it from me to set up my opinion as the universal standard for trying gentlemanly demeanour or purity of style; I only hope that, in this free country, I may be permitted to form and express my own sentiments upon such subjects, on my own responsibility. With regard to intemperance in debate, men judge more according to definite rules; and as neither your Journal, nor the Worcester newspaper, afford the means of accurately judging of the conversation between Drs. Laycock and Hastings, I may be permitted to mention that I stayed away from the dinner at York, on the 5th inst., solely on account of Dr. Hastings' intemperate conduct; and that, upon that day, I accidentally met at dinner four gentlemen who acted similarly, upon the same grounds.

As your Journal is now the organ of the Provincial Medical Association, of which I am proud to be a member, I trust you will see the justice of giving insertion to this letter in your next number; and I must also suggest, that neither a defence of Dr. Hastings, nor an attack upon any other member of the Association, should in future be conducted anonymously. Dr. Hastings, as secretary of the Association, is virtually responsible for the conduct of the acknowledged organ of the body; and I cannot think he is justified in making that organ the vehicle of an anonymous attack upon a brother member, even though he may think such to be necessary for his own defence.

I am truly yours,

H. MAUNSELL.

Dublin, Aug. 24, 1841.

TRANSACTIONS OF THE COLLEGE OF SURGEONS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

*Royal College of Surgeons in London,
September 6, 1841.*

GENTLEMEN,—By direction of the President, I transmit to you the enclosed, and request the insertion thereof in your Journal.

Your obedient servant,

EDW. BELFOUR, Sec.

The Council proposing to publish, in the course of the ensuing year, a volume, to be entitled "*Transactions of the Royal College of Surgeons in London*," invite, from the members of the College and other scientific persons, communications relating to the improvement of anatomical and surgical science.

The subjects proposed to be included in this Publication are specified in the following extract from the Ordinances of the College:—

"The Transactions shall consist of—Original Communications on Surgical subjects—Collegial

and Jacksonian Prize Dissertations, deemed of sufficient originality and merit—Original Memoirs on Human Anatomy—Original Memoirs on Comparative Anatomy—Anatomical Monographs of rare Animals, dissected in the Museum of the College—Explanations of, and Commentaries on, important Preparations in the Museum, with illustrative Plates—Statistical Reports from Hospitals."

It is requested that Papers intended for publication in this volume may be transmitted to the President, at the College, on or before the 1st of May 1842.

EXTRA-UTERINE CONCEPTION—GASTROTOMY.

M. MATHIEU has communicated to the Academy of Medicine, Paris, an interesting case of this kind.

A woman, 38 years of age, became pregnant for the fourth time in the month of January 1835. At the ninth month labour pains set in, but the delivery made no progress. On examination the medical attendants discovered the existence of extra-uterine pregnancy. As a similar case in the neighbourhood had terminated, some short time before, in the discharge of the foetus through the abdominal parietes, they resolved on leaving the affair to nature. The pains, however, continued to increase, and the woman was reduced to such a state of despair that she applied to M. Mathieu, declaring that unless he operated she would destroy herself. As the abdomen contained a considerable quantity of fluid, M. Mathieu first tapped it, and was then enabled to distinguish the tumor formed by the foetus, with another tumor, as large as an ostrich's egg, behind the ensiform cartilage. After the lapse of two days, he incised the abdomen from the umbilicus to the pubis, in order to extract the foetus, and from the umbilicus to the ensiform cartilage, for the removal of the second tumor. The placenta adhered so firmly, that it was necessary to tear it away with the fingers, an operation which lasted seventeen minutes.

The child was eighteen inches long, and weighed five pounds three ounces. The second tumor contained some hair, a matter analogous to brain, and a single bone, one inch long.

The patient was placed on milk diet; purged several times, and then took bark; chlorine injections were thrown into the abdomen, and it was found necessary to extract the pus from the abdominal cavity with an exhausting syringe. The patient, however, recovered in thirty-seven days, with a fistulous opening in the belly.—*Exam. Med.* No. 10.

BOOKS RECEIVED.

A Practical Treatise on the Efficacy of Mineral Waters on the Cure of Chronic Disease, &c. By Sir A. M. Downie, M.D. Frankfort, 1841. 8vo. pp. 219.

A Short Description of Kissingen, its Baths and Mineral Waters. Translated from the German of Dr. Balling, by Sir A. M. Downie, M.D. Frankfort. 1841.

Memoir on the Case of a Gentleman born Blind, &c. (From the Philosoph. Trans.) By Augustus Franz, M.D.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, August 27, 1841.—John Marshall, John Henry Cooper, Henry William Parrell Davis, Ferdinand William Hutchison, Henry Gilbert Luttrell, Peter Brady, Robert Muney, James Phelan, Thomas Murray Farquhar, James Butler, Francis Hastings Baxter, George Munns, Thomas M. Evans, John Waggett, William Bates.

Monday, August 30, 1841.—Edwin Thomas Wait, John Little, Frederick John Ffolliott Payne, Matthew George Painter, George Alexander Waters, George Robert Ridley, William Edward Charles Nourse, John Bateman Wheelhouse, Thomas Holt, Samuel Hare.

Tuesday, August 31.—Thomas O'Beirne, William Huggins, William John Bowden, Robert Malcomson, William Theodore Elliott, John Whitmore.

TO CORRESPONDENTS.

THE Secretaries of the Provincial Medical and Surgical Association inform the members that the *PROVINCIAL JOURNAL* will in future be forwarded, free of expense, to all members of the Association whose subscriptions are not in arrear. To enable the secretaries to meet the expense of this arrangement, it is absolutely necessary that the subscriptions be punctually paid; the *JOURNAL* cannot be supplied to those members who neglect to forward their subscriptions.

The publisher of the *PROVINCIAL JOURNAL* begs to inform gentlemen desirous of completing their sets, that a new and improved series, containing Sir A. Cooper's papers, &c., commenced with the present volume, April 3, 1841. The back numbers from this period may be obtained through the medium of any bookseller or newsman in town or country.

We have to thank a friend in *Liverpool* for the *Albion* newspaper. We shall feel grateful if our friends in other parts of the country will forward any newspapers which contain information of local interest.

Provincial Medical Schools. As we propose giving an account of the different provincial schools in an early number, we shall feel obliged for prospectuses, &c.

Letters and communications should be addressed to *Dr. Hennis Green*, 58, Margaret Street, Cavendish Square. Letters connected with the Provincial Association may be addressed to *Dr. Streeten*, Foregate Street, Worcester.

Printed by THOMAS ISOTSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JOSIAS PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMSEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, September 10, 1841.

UNIVERSITY COLLEGE, London,

—Faculty of Medicine—Session 1841-42.—The WINTER TERM will COMMENCE on Friday, October 1.—Classes (in the order in which the Lectures are delivered during the day):—

MIDWIFERY and the DISEASES of WOMEN and CHILDREN—Professor DAVIS, M.D.

ANATOMY and PHYSIOLOGY—Professor SHARPEY, M.D.

CHEMISTRY—Professor GRAHAM.

COMPARATIVE ANATOMY and ZOOLOGY—Professor GRANT, M.D.

ANATOMY and PRACTICAL ANATOMY—Professor QUAIN.

MATERIA MEDICA and THERAPEUTICS—Professor THOMSON, M.D.

MEDICINE, PRINCIPLES and PRACTICE of—Professor WILLIAMS, M.D.

SURGERY, PRINCIPLES and PRACTICE of—Professor COOPER and Mr. LISTON, Professor of Clinical Surgery.

PRACTICAL ANATOMY.—The Pupils will be directed in their studies, during several hours daily, by Mr. ELLIS and Mr. MORTON, under the superintendence of Mr. QUAIN and Dr. SHARPEY.

HOSPITAL PRACTICE daily throughout the year.

PHYSICIANS—Dr. WILLIAMS, Dr. THOMSON, Dr. TAYLOR.

SURGEONS—Mr. COOPER, Mr. LISTON, Mr. QUAIN.

ASSISTANT SURGEON—Mr. MORTON.

MEDICAL CLINICAL LECTURES, by Dr. TAYLOR, Professor of Clinical Medicine, twice a week; also by Dr. WILLIAMS and Dr. THOMSON, each twice a week,

SURGICAL CLINICAL LECTURES, once a week, by Mr. COOPER and Mr. LISTON, each once a fortnight.

The following subjects will be taught during the SUMMER TERM:—

BOTANY—Professor LINDLEY, Ph. D.

MIDWIFERY—Professor DAVIS, M.D.

PATHOLOGICAL ANATOMY—Professor WALSHE, M.D.

COMPARATIVE ANATOMY and ZOOLOGY (Elementary Course)—Professor GRANT, M.D.

FORENSIC MEDICINE—Professor THOMSON, M.D.

PRACTICAL CHEMISTRY—Professor GRAHAM.

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CHAS. C. ATKINSON, Secretary to the

August 4, 1841.

Council.

The Lectures to the Classes of the Faculty of Arts commence on the 15th of October.

The Junior School opens on the 23rd of September.

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COURSE

OF

LECTURES ON PHYSIOLOGY AND SURGERY,

DELIVERED AT ST. GEORGE'S HOSPITAL,

BY JOHN HUNTER, F.R.S.

(From the Manuscript of Dr. Thomas Shute.)

LECTURE XI.

SUPPURATION IN BONE.

ABSCESSSES form in bone as in soft parts, and are conducted to the skin by ulceration. The ulceration must begin almost at the same time as the matter is formed, for when one particle of matter is deposited, the surrounding parts must be removed to make room for more. In compound fractures we have suppuration and granulations; the latter become cartilaginous, and then bone performs the union: thus we have these salutary processes arising progressively one out of another. Joints, when exposed, suppurate, granulate, and unite by bone, in the same manner as compound fractures. This species of anchylosis forms the fifth kind, four of which have been described before. Suppuration seldom begins in a bone; much more frequently in the external parts, and the bone receives the disposition from them. When a bone has suppurated and ulcerated, it restores the lost part by granulations, these granulations becoming cartilaginous or membranous according to the nature of the bone, and afterwards ossify. Thus, after trepanning the skull, the granulations become membranous, and then ossify.

The granulations arising from bone sometimes ossify, and cause a disease by forming a bony tumor. Here are several specimens of this: the ossified granulations have a very different appearance from those parts which have taken on the ossific inflammation. Suppuration in bone may be divided into three species: a division is made from the situation of the matter, and not from any difference in the kind of suppuration.

The first species is, where matter forms on a bone or in the periosteum. The second, when it is found in the substance of a bone. The third, when it is formed in the medulla of a bone. A fourth might be added, when matter is formed in a joint. In the first species, the periosteum is raised from the bone, the surrounding parts take on the ossific disposition, and bone is formed round the abscess in a circle; the soft parts likewise acquire the feel of bone, and the ulceration conducting the matter to the skin goes on faster than the new bone can be formed externally, otherwise there would not only be a circle of bone

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formed round the abscess next the bone, but it would be completely encased in bone. The surrounding soft parts, however, always take on the bony hardness to the touch. When these abscesses are opened, they give the idea of matter sunk into the bone, having exactly that appearance.

Thus, when matter forms on the skull, the new bone forming gradually round it, gives the feel and appearance, when opened, as if the matter sank into the skull, although the bone is perfectly entire. In all these abscesses, the openings made should be free: the granulations are apt to take on the ossific disposition, and the surrounding parts also.

In the second species, the swelling of the bone is confined to the side which is inflamed: the ulceration must begin almost immediately, when it suppurates, to make room for more matter. The stimulus for ulceration will be given on that side next the skin, and it will come through the bone by a small opening; the periosteum will inflame, and take on the ossific disposition. The ossific inflammation will be adding bone on the outside while it is ulcerating within: the ulcerative inflammation, however, goes on faster than the ossific can add new matter, otherwise no opening could be made for the pus; the opening is usually a small one, sometimes there are two or three: when the matter has passed through the bone, it spreads, forming a second cavity in the soft part, and at last breaks through the skin; thus, then, we have two cavities, one in the soft part, the other in the bone, communicating with each other by a small bony sinus.

When this case is known by the external opening of the soft part discovering the opening into the bone, it should be dilated by the actual or potential canterly or trepan; thus, the two large abscesses are thrown into one. If the sore becomes indolent, active stimulating dressings should be applied. Tincture of myrrh is recommended; it seems at least to have a power of correcting matter, and rendering it less putrid.

Ulceration will be carried on to the skin, and then the fluctuation may be felt, and the case known to be an abscess.

Before the fluctuation is felt, it is impossible to say what the disease is. If bones could be examined in all the different periods of their disease, a great number of curious facts might be observed.

In the third species, the situation of the matter is much more serious than in the former; the stimulus being given generally equally on every side, the matter does not know which way to go, therefore the bone commonly swells all round. If one side of the bone is situated nearer to the skin than the other, then it generally ulcerates on that side, or if one part has a greater tendency to ulcerate than another, then it may make its way out; but if neither of these is the case, it then generally ulcer-

c c

ates on every side; the ossific inflammation going before, forms just bone enough to prevent its breaking: thus, a bony shell is formed, containing the matter and supporting the bone: this has been considered as a swelling of the bone, but it is entirely a new-formed part, and has none of the original bone in it. In these cases nothing can be done in general but amputation. Sometimes the bony shell becomes so thin as to break.

Granulation of bone.

When an abscess is formed in or upon a bone, it is necessary to open it freely, to cause it to granulate. This is to prevent the granulations from the soft parts growing over the bone, and pressing those down which arise from it. Although the external opening should be made large, the bone should not be exposed, for that would cause death in the part, and then it must exfoliate.

Granulations are by much the weakest part in an animal body; therefore, parts formed by them are very apt to ulcerate. Parts united by the adhesive inflammation are much stronger, therefore compound fractures are much more apt to become disunited than those which were simple.

Abscesses sometimes form in joints; when the case is known, they must be opened: the matter contained in them is seldom of the true suppurative kind, but between that and the adhesive. When these cases do well, they granulate and heal as other wounds. It is to be wished that the granulations remain in that state, forming the soft ankylosis, which admits of some degree of motion; but this seldom happens, for they generally ossify. These cases are very apt to terminate ill, frequently causing hectic symptoms, and ending in the death of the patient. Joints are very tedious in all their operations toward a cure. From the matter which is discharged always having a mixture of the coagulable lymph, it shows that there is a constant irritation kept up, and in the surrounding parts there is always considerable tension. Granulations, by becoming ossified, perform the union between bones, when they are exposed; by this means the cavity of the bone at the extremity of a stump is closed. Here is the leg of a bustard which has been amputated; the small bones answering the purpose of tendons, are united with the great bone by means of granulations becoming ossified.

In compound fractures, the exposure causes suppuration. The suppurative inflammation is always surrounded more or less with the adhesive or ossific inflammation, therefore in these cases the callus is usually larger than in simple fractures, and larger than the granulations extend; the ossific inflammation extending into the soft parts increase it. Compound fractures in general do better than large exposed joints. In these, as in joint cases, the adhesive inflammation does little mischief to the constitution; it is the suppurative which destroys the patients, when they do not go on well. The cause of the suppuration doing so much mischief in these cases, is the great extent of exposed surfaces, which, if all were apparent, would frequently be larger than the largest stump.

In amputations, the mischief done to the constitution arises more from the size of the amputated part, than the extent of the wound; there-

fore we have not so much injury done to the constitution in amputations of the breast, or a large wound on the buttock, as in amputation of the thigh, when the surface of the wound is equally large in both. The removing a large portion of the body gives a great shock to the constitution.

Rickets.

This disease is a defect in the formation of bones. The fault may be in the constitution, or from a wrong principle of action in the bones. Perhaps particular constitutions are subject to this disease, for it appears to arise from a particular kind of weakness. This seems probable, for we frequently see patients weakened to a great degree, and it does not produce this disease.

There seems to be a want of power to form calcareous earth, for these bones are always soft. The extremities of the bones are very much enlarged, and all those which are of a spongy texture naturally. From the bones growing so large, it appears as if the calcareous earth in bone checked its growth. A perfect bone should have a certain proportion of calcareous earth and animal matter. In these cases there is not the proper proportion of calcareous earth. Adults may have the same disposition to this disease as young subjects, and their bones may become soft, which sometimes happens; but they will not grow larger, for when the growth of a part is completed it will not grow again, although changes may happen to it.

The disease may arise from the same disposition in both the young and adult subject: which is, perhaps, a want of disposition to deposit calcareous earth. It may be accounted for by the ossific matter not being deposited in proper quantities, while the absorbents are removing it as usual, by which means the bones are deprived of their calcareous earth.

From this account the rickets may be defined, a softness of the bones caused by a deficiency of calcareous earth, with an increase of their animal part.

The pressure on the bones, from the weight of the body, will produce great distortion, which is frequently seen in the spine. The action of muscles will likewise cause distortion, as seen in the legs; therefore we never see the tibia bent backwards; the weight of the body will likewise assist in bending the bone. The os humeri is often bent forward by the action of the triceps extensor cubiti.

Knocked-knees are caused by the femurs bearing on the tibia in an oblique direction, which makes them give way when the bones are weak, the pressure being continually inward. Bow-legged people are generally stronger than others, which is owing to their joints being straighter, the femurs in them bearing more perpendicularly on the tibiae, than in those whose tibiae are upright. The cure for the rickets consists in strengthening the constitution, which will be best effected by giving the bark, sea-bathing, cold-bath, exercise, and perhaps steel.

Exostosis.

This disease may be divided into two species, the local and the constitutional.

The bony tumor does not arise from the ossific

inflammation, extending into the soft parts and ossifying them, nor from granulations becoming ossified, but it is a luxuriant disposition in one part of the bone to increase, growing out as the hoofs or horns of animals. The tumor arises sometimes suddenly, and is of various shapes. It is generally from the soft ends of the bones that it grows: from their size and situation, they sometimes obstruct the action of muscles and motion of joints. Sometimes there is only one, appearing to be a local disposition in the bone to form the tumor. In some people they are so numerous, that it appears to be from disease of the constitution. Probably they are of rickety habits. Sometimes they may be removed with success, not afterwards returning. They are generally so soft that they may be pinched off. I performed the operation on a young gentleman, who had this kind of tumor under the deltoid muscle, near the head of the bone; it was pinched off with a large pair of pincers, which is in general a more convenient instrument than a saw, because the latter cannot be well carried between the muscles down to the bone.

Fractured patella.

The fracture of this bone differs in several circumstances from every other bone. It is sometimes united by callus, and at other times by tendinous and ligamentous substance.

This fracture partakes both of the simple and compound; perhaps more of the last than the first, but this will greatly depend on the manner of treatment. If the bones are brought in contact, they may unite as a simple fracture; but if they are separate from each other, then the extravasated fluids will run into the joint, and leave the bones in the state of a compound fracture, except their not being exposed. When the fractured pieces of bone are kept at a distance from each other, they unite by a ligamentous substance instead of callus. It is well the union is such, for if it was by bone, its length would be very inconvenient in motion, and from its projection would be very subject to fracture.

In what manner callus is formed between the broken pieces of a fractured patella is difficult to conceive; it cannot be as in a simple fracture, for the extravasated fluids are lost. In these cases, the joint may usually be felt distended with extravasated fluids. The union is not probably performed by granulations; for it is not known that parts will granulate without exposure.

I conceive that the union may be performed by the coagulable lymph becoming extravasated from the fractured pieces, and coagulating the moment it is extravasated. This lymph then becoming vascular, may perform the union as with blood. The union, however, (where the bones are at a distance,) must, I think, be formed in a manner somewhat like granulations, but I never have been able to see these parts at the time they were forming.

It was the practice, thirty years ago, not to bring the pieces of a fractured patella in contact, from an idea that the callus would form a ridge on the inside, and impede the action of the joint. Such

a bony ridge may be formed, if the bones are kept long inactive; but if the joint is soon and frequently moved, it will be prevented, a slight degree of pressure being sufficient. In fractures of the ribs, the luxuriance of callus never projects into the chest; the pressure of the lungs from their action prevents it. The motion of the limb should be passive, that is, performed by the hand, and not the action of the muscles; it should be slight, and performed with great caution. When the union is performed by a ligamentous substance, the ossific disposition never extends far into it; if it did, the patella would be too long, and unfit to admit of free motion in the joint.

The union by ligamentous substance is very tedious, and it is usually very long before there is a perfect motion of the joint. The time required for the union of the bones by ligament, will be in proportion to their distance of separation.

The following case shows the connexion between the mind and the living principle. The *will* influences the nerves, and the muscles, though incapable of acting by that stimulus at first, gradually acquire the power of action. The living principle being stimulated, gradually produces the new power in the muscles, whereas if it was not stimulated, it never would produce such a power.

In this case the bones had been left to themselves after the accident, and had retired to a considerable distance, about four inches from their natural situation; the divided pieces united, but the patient had not the least power of extending her leg five or six years after the accident; the muscles had not acquired any new action. She was directed to sit on a high chair with her legs bent, and to endeavour to move her leg forward; at first she could not produce the least motion, nor after many attempts; however, after a number of attempts, a slight degree of motion was produced, and by degrees she was able to perform the complete extension of her legs. It was a month before any motion at all was produced. The action being acquired, then it was necessary to increase the strength of the muscles, which was accomplished by attempting to raise herself from a chair, by the action of the extensor muscles alone. It was three years before the action and strength of the muscles were perfectly acquired, at the end of which she walked very well.

Bandages are frequently applied to give strength to a part, but strength will be sooner acquired without them. Mechanical action can never give strength to a part, where it is to be acquired by action produced by itself. Mechanical action, by retarding the living action, will prevent instead of assist the strength of the part. Bandages in such cases are therefore hurtful; they give the idea of strength from the part feeling firmer: with strengthening plaster it is the same.

LECTURE

ON THE

CONNEXION BETWEEN LIFE AND MATTER

IN

THE SERIES OF ORGANIZED BEINGS.*

By M. DUMAS,

PROFESSOR OF CHEMISTRY AT THE FACULTY OF MEDICINE, PARIS.

GENTLEMEN,—Of the mysterious phenomena of life, a certain portion evidently depends on the agency of inorganic matter, while another portion emanates from a higher source, almost inaccessible to our limited understandings.

It is beyond my province, gentlemen, to examine the assemblage of facts connected with the normal or irregular exercise of our vital instincts; still less have I to do with those nobler faculties, through which human intelligence, breaking down every obstacle, and submitting all nature to its dominion, has seized upon earth, sea, and sky, to penetrate the laws which govern this universe. Our task is a more humble one; to investigate the way in which matter concurs towards the production and growth of organized beings; its influence on their daily existence; and the changes which it undergoes after their dissolution. Such are the questions that we have to study together.

Plants, animals, and man, contain a certain quantity of matter; whence comes this matter? What part does it play in the body? Whither does it go, when death has broken the link which binds together the various elements of a living being?

These questions would, at first, seem too complex and difficult for modern chemistry to resolve; but as we study the subject, we acquire more confidence in the resources of our science. Amid the numerous elements whose existence modern chemistry has revealed to us, living bodies contain but a small number; of the infinite number of animal and vegetable principles, general physiology recognises not more than ten or twelve species, and shows us that the essence of the phenomena of life, which appear to be so complicated, may be comprised under one of the most simple laws. We have, in fact, already shown that, chemically considered, an animal is nothing more than an extensive apparatus for effecting combustion, wherein carbon is constantly burning and returning to the air under the form of carbonic acid—wherein hydrogen is constantly burning to produce water—whence free nitrogen is incessantly exhaling by respiration, or nitrogen, in the form of oxide of ammonium, is passing off by the urine. Hence the animal kingdom, considered abstractedly, is a machine which constantly discharges carbonic acid, water, nitrogen, and oxide of ammonium; four simple bodies, the production of which is strongly connected with the history of atmospheric air.

On the other hand, we have shown that plants, in the exercise of the vital functions, decompose carbonic acid to retain its carbon, and set free its

oxygen; that they decompose water, setting free the oxygen in like manner, but appropriating the hydrogen; finally, that they obtain nitrogen, either directly or indirectly, from atmospheric air. Thus the functions of a vegetable are exactly the same as those of an animal, save that they are exercised in an inverse order; the animal kingdom forms an immense apparatus of combustion; the vegetable kingdom constitutes as extensive an apparatus of reduction, wherein decomposed carbonic acid deposits its carbon—water, its hydrogen—oxide of ammonium and nitric acid their nitrogen. If animals are incessantly giving out carbonic acid, water, nitrogen, and oxide of ammonium, vegetables, on the other hand, are as constantly consuming the ammonium, azote, water, and acid; what the one gives to the air the other abstracts from it; if we may be permitted to generalize this fact, we may say that organized beings are nothing but condensed air; and to form a correct idea of the atmosphere at a period antecedent to the creation of living things, we should calculate and add to it the carbonic acid and nitrogen which were subsequently abstracted by vegetables and animals.

Organized beings, then, live upon the atmosphere, and return to the source whence they have derived their life. Let us now inquire how animals obtain the elementary principles which they render up to the air. Observation demonstrates that animals do not create true organic materials, although they destroy them: plants, on the contrary, produce these materials, while they destroy but few, under peculiar circumstances and for determinate objects; hence the vegetable kingdom is the great laboratory of organic life, where animal and vegetable matter is produced at the expense of the surrounding atmosphere; from vegetables this matter passes to herbivorous animals, which destroy one portion, and appropriate the rest for the formation of their tissues; from herbivorous animals it passes, ready formed, to the carnivorous, and when the latter perish, the same organic matter returns to the atmosphere from which it was originally derived: thus terminates the mysterious circle of organic life. Air contains oxygen, carbonic acid, water, nitrogen, and oxide of ammonium; vegetables collect these elementary principles, and decompose them, to form the various organic substances which they yield to animals; while the latter, acting as so many apparatus of combustion, reproduce the carbonic acid, water, nitrogen, and oxide of ammonium, which pass into atmospheric air, to produce again the same phenomena, through time without end.

If we add to this grand and simple theory the influence which solar light exercises on the functions of the vegetable kingdom, how striking are the words of Lavoisier: "Organization, sensation, spontaneous motion, life itself, exist only on the surface of the earth, and in places exposed to solar light. One would think that the fable of Prometheus's torch was the expression of a fact in natural philosophy, familiar to the ancients; without light nature was inanimate; a benevolent divinity brought down light upon the earth, and with it extended life, sensation, and thought, over the surface of a barren waste."

The sentiments of our great chemist are no less true than beautiful; if reason and the noblest faculties of the human mind require for their mani-

* This highly interesting lecture formed the concluding discourse of M. Dumas to a series of lectures on organic chemistry. We are indebted to the *Journal des Débats* for it.

festation an earthly receptacle, it is the vegetable kingdom which fabricates this mould of earth with elements derived from the atmosphere, and under the influence of light, which the sun diffuses, from an inexhaustible source, over the whole surface of our globe.

But in the sublime phenomena of life, everything seems to depend upon causes that, at first sight, would appear to be obscure and remote; the oxide of ammonium and nitric acid, from which plants obtain a considerable portion of their nitrogen, are generated by those immense explosions of electric matter, which in times of ignorance were regarded as the voice of an offended Deity; from the bosom of volcanoes which convulse the earth, the principal nourishment of plants (carbonic acid) is constantly escaping; from the thunder-storm and the hurricane descends another alimentary substance of plants, (nitrate of ammonia,) from which they obtain the chief part of their azote. The same chaos that preceded the creation of our earth seems to revive for its permanent existence in the tumult and disorder of the elements; but the instant that carbonic acid and nitrate of ammonia are formed, the peaceful though not less powerful influence of light is exercised; through its agency the carbonic acid yields its carbon, water its hydrogen, nitrate of ammonia its azote; these elements combine to form organised bodies, and the surface of the globe is covered with life and verdure. Thus you see that by absorbing light and heat from the sun, plants are enabled to produce the immense supplies of organised material necessary for the support of the animal kingdom; and in addition to this, if we reflect that animals generate heat and force, in consuming what is supplied by the animal kingdom, the whole problem of life seems before us, in its most simple and abstract expression.

The atmosphere appears as a vast reception for the elementary materials of all organized beings—volcanos and storms as laboratories for the production of carbonic acid and nitrate of ammonia, without which life cannot exist or multiply: to their aid comes solar light, and develops the vegetable kingdom, furnishing to the latter a chemical power capable of decomposing carbonic acid, water, and nitrate of ammonia—finally appear animals, consuming matter, producing heat and force—simple machines for combustion. It is true that organic matter assumes its most perfect form in animals, but, in becoming the instrument of thought and feeling, it sacrifices its own existence; for matter, while thus connected with the spiritual part of man, burns away as a coal of fire, and in producing heat and electric force is totally destroyed, to return to the atmosphere whence it was originally derived.

The atmosphere, then, forms the mysterious chain which connects the vegetable to the animal kingdom. Vegetables absorb light and accumulate matter, which they organize. Animals receive this organized matter from vegetables, and burn or consume it, to produce heat and force. Did we venture to compare the work of man to the creations of his Maker, we might find an analogy between vegetation (the store of animal life) and the stores of natural carbon, which, when submitted to combustion by the genius of a Papin or a Watt, produce in like manner carbonic acid, water, heat, and motion—one might almost add,

intelligence and life; for the vegetable kingdom is, in truth, nothing more than an immense dépôt of combustible material, intended to be consumed by animals, for the production of heat and locomotive power.

Gentlemen, since all the phenomena of life are exercised on materials having for their base, oxygen, hydrogen, nitrogen, and carbon—since these simple bodies pass from the vegetable to the animal kingdom, through the intermediate forms of carbonic acid, water, and oxide of ammonium—finally, since the atmosphere is the source whence vegetables obtain their nourishment, and the reservoir into which animals pass after their destruction, let us cast a rapid glance on the different substances just mentioned, and point out their bearings on general physiology.

Composition of water.—Water is constantly formed and decomposed in animals and plants. From experiments founded on the direct combustion of hydrogen, during which I have obtained more than a quart of artificial water, it seems probable that water is composed, in weight, of one part of hydrogen united with eight parts of oxygen, and that these integral numbers express the exact proportions of the elements of water. An atom of hydrogen then weighs 1; an atom of oxygen, 8; an atom of water, 9.

Carbonic acid.—The composition of this acid also demands particular attention, since it is constantly produced by animals, and as constantly decomposed by plants. Experiments on the diamond have shown me that carbonic acid is composed of one atom of carbon, weighing 6; and two atoms of oxygen, weighing 16; its atomic weight then is 22.

Ammonia.—This substance is composed of three parts of hydrogen and fourteen of nitrogen, giving an atomic weight of 17, or 3 for hydrogen and 14 for nitrogen. Thus the atomic system of physiology resolves itself into four numbers; 1 for hydrogen; 6 for carbon; 7, or its multiple 14, for nitrogen; and 8 for oxygen.

Air.—Is atmospheric air, which exercises so immense an influence over organized beings, a compound analogous to water, carbonic acid, or ammonia? I have recently examined this question with M. Boussingault, and we have found, contrary to the opinion of Dr. Prout, that air is a true mixture of certain substances. Atmospheric air contains in weight 2300th parts of oxygen for 7700th of nitrogen; in volume 208 of the former, to 792 of the latter; besides these, it contains 4 to 6·10,000th of carbonic acid in volume; the general quantity being 4·10,000th; it also contains nearly an equal quantity of carburetted hydrogen gas, which is constantly discharged from stagnant water; we do not mention aqueous vapour containing oxide of ammonium and nitric acid, which, from their solubility in water, cannot exist as a permanent component part of air. Atmospheric air, then, is a mixture of oxygen, nitrogen, carbonic acid, and carburetted hydrogen gas. The quantity of carbonic acid varies considerably, from 4 to 6·10,000th. Is this a proof that the equilibrium of the elements of air is preserved by the inverse influence of animals and plants on it? Animals abstract oxygen from the air, and render to it carbonic acid; plants, on the other hand, decompose this carbonic acid, fix the carbon, and restore oxygen to the atmosphere. But since animals are

constantly breathing, while plants only breathe under the influence of solar light; since the earth is barren in winter, while during spring and summer it is covered with verdure, some natural philosophers think that the composition of the atmosphere should vary under these different influences; the carbonic acid should be increased during the night, be diminished by day, and follow the course of the seasons, while the oxygen should be modified in an inverse ratio. This is true to a certain extent, and holds good with regard to a portion of air confined under a glass bell, but in the immense mass of the atmosphere these local variations are completely lost. Ages must roll away before the influence of respiration on the composition of the atmosphere can be felt; and we are still far from those diurnal or annual variations which some were inclined to regard as evident.

Thus, calculation shows that it would require 800,000 years before animals could abstract all the oxygen from the atmosphere; or if we suppose an analysis of the air to be made in 1800, and that the vegetable kingdom were to cease its functions during a whole century, while the animal kingdom continued to consume oxygen, the air, in 1900, would have lost only 1.8,000th part of its oxygen, a quantity too small to be discovered by the most delicate analysis, or to exercise any influence whatever on animal and vegetable life. Besides, nature has so disposed that the intervention of plants for the purification of the atmosphere should not be required before the lapse of many ages. The surrounding atmosphere weighs as much as 581,000 cubic kilometres of copper, and its oxygen as much as 134,000; hence, if we allow the earth to contain 1,000 millions of inhabitants, with an animal population equivalent to 3,000 millions of human beings, it would require a century to consume a quantity of oxygen equivalent to 15 or 16 cubic kilometres of copper; 10,000 years must pass over, before the whole population of the earth could produce any effect appreciable by the eudiometer of Volta.

Hence, a due proportion of oxygen in the atmosphere is guaranteed for ages yet to come, even though we admit that vegetables exercise little or no influence on it; but they restore as much oxygen as the atmosphere loses, and perhaps more; their principal use, however, is not to purify the air, but to furnish animals with nutriment. Were this to fail during a single year, animal life would vanish from the face of the earth. Here lies the true bond of connexion between the two kingdoms; destroy plants, and the destruction of animals inevitably follows.

As we have already mentioned, the quantity of carbonic acid in the air varies from 4 to 6.10,000th; these variations are frequent and easily observed. Do they depend on abstraction of carbonic acid by vegetables, or on an irregular supply from the animal kingdom? No; they are simply meteorologic phenomena; the carbonic acid is influenced in the same way as the aqueous vapour, which collects over the surface of the sea, falls under the form of rain, and again rises in the shape of vapour; the water which is condensed into rain, brings down carbonic acid with it; the vapour which ascends from the surface of the globe, carries the same acid with it to the air. It would be highly interesting to compare the variations of

the hygrometer, and of the seasons with the variations of carbonic acid in the air; but as far as our present knowledge extends, everything seems to prove that the rapid changes in the proportion of carbonic acid depend on meteorological causes, and not on certain acts connected with the functions of animals or plants.

Germination.—Cast a seed into the earth, and then follow the nascent vegetable until it produce flowers and fruit; analyze each process, and you will find that the primitive grain, in producing a new being, has merely fixed a certain quantity of carbon, hydrogen, oxygen, nitrogen, and cinder.

Carbon.—This substance is derived either from the carbonic acid of the air, or from the acid produced during the decomposition of manure, &c., in contact with the roots of the plant. The atmosphere, however, furnishes by far the greater portion: look at the majestic oak which has flourished for centuries; it now contains or has consumed enormous quantities of carbonic acid; how little was derived from the earth on which the acorn originally fell? Experiments easily demonstrate that plants obtain carbonic acid from the air, through their leaves, or from the earth through their roots. Peas sown in sand, watered with distilled water, and nourished merely by atmospheric air, flourish and bear fruit; the leaves of a vine completely enclosed in a glass globe consumed carbonic acid, however rapidly passed through the globe. M. Boucherie has seen enormous quantities of carbonic acid escape from the trunks of trees half cut down; the acid was evidently aspired from the earth by the roots of the tree. When plants vegetate in the shade, or during night, the carbonic acid is merely filtered through their tissues, and thence escapes, unchanged, into the air; but when the same acid, passing through the leaves, comes in contact with solar light, a far different effect is produced; the carbonic acid disappears; minute bubbles of oxygen are formed over the surface of the plant, and the carbon remains fixed in its tissues. But this decomposition of carbonic acid is not the only curious phenomenon manifested by the green parts of plants; when their image is transferred to the Daguerrotype, the green parts are not represented, as if the chemical rays essential to the photogenic process were completely absorbed and retained; this, however, may be readily explained by the enormous chemical power which is required for the decomposition of so stable a substance as carbonic acid. But it may be asked, what becomes of the fixed carbon in plants? The greater portion combines with water or one of its elements, and produces substances intimately connected with the existence or functions of the vegetable. When 12 atoms of carbonic acid are decomposed, and yield up their oxygen, 12 atoms of carbon are the result, which, combined with 10 atoms of water, will constitute the cellular and ligneous tissues of plants, or the starch and dextrine procured from them. Thus the major portion of the plant, consisting, as it does, of cellular and ligneous tissue, with starch and gummy matter, will be represented by 12 atoms of carbon with 10 of water. The woody tissue, insoluble in water; starch, which is dissolved in boiling water; and dextrine, which readily dissolves in hot or cold water, are three distinct substances, of exactly the same composition, but differing in the atomic arrangement of

their elements. Thus, with the same elements, in the same proportions, nature produces the insoluble parietes of the cellular tissue and vessels; the starch which she collects as nutriment around the buds and embryos; or soluble dextrine which the sap carries from one part to another, according to the necessities of the plant. By the union of carbon with water, are likewise produced those saccharine substances frequently deposited in the organs of plants for special purposes. Twelve atoms of carbon with eleven of water, form the sugar of canes; the same quantity of carbon with fourteen atoms of water, constitute the sugar found in raisins. Hence, if we reflect on the connexion which exists between vegetable life and the various substances just enumerated, we can fully understand the importance of that wonderful function whereby plants decompose carbonic acid, and fix its carbon.

(To be concluded in our next.)

PARALYSIS FROM LEAD

IN WATER USED FOR DRINK.

TO Dr. GEORGE GREGORY,

LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON,
&c. &c. &c.

MY DEAR SIR,—On referring to your excellent elementary work on the theory and practice of medicine, I find, under the chapter on palsy, the following observations:—

“The difficulties which we have to encounter in any inquiry into the pathology of paralysis, are increased, when the investigation is extended to those cases of general and partial palsy, which, being to all appearance unconnected with any derangement of structure or function in the encephalon, must be presumed to depend on the condition of the nerves themselves. That such cases do occur is unquestionable, and it must be left to future inquiries to determine in what manner these apparent inconsistencies are to be reconciled.”

Again, in some interesting cases, published by you in the sixteenth volume of the Medical Repository, p. 265, you remark.—“It was a never-failing source of surprise to myself and the other practitioner in attendance, to observe palsy so complete in the extremities of the body, without the presence of a single symptom that could authorize our looking to the head as the common source and origin of the complaint.”

It appears, also, in the same paper, that Dr. Powell had met with similar cases, and had endeavoured to show, that “certain paralytic affections, both partial and general, originate in a peculiar condition of the nerves alone; that they are independent of any morbid affection of the blood-vessels of the head; that they are produced in many instances by cold, and in some by sympathy with particular states of the stomach, or other distant local irritabilities.”

These remarks struck me very forcibly, as they precisely corresponded with my own experience. I had seen numerous examples of palsy, especially of the upper extremities, which I could not explain to my satisfaction, either by observation or by reasoning; and I had seen the same disease come

in more than one person from the same district. In these the loss of power had been preceded by long-continued neuralgic pain across the epigastric and umbilical regions. There did not appear to have been any primary affection of the brain or spinal medulla; their trades or employments threw no light on the disease; they lived in the country, and were mostly occupied in horticultural or agricultural pursuits. I therefore came to the conclusion, that the motor nerves of the arms were paralysed by the gastrodynia or intestinodinia, through the connexion of the ganglionic nerves with the brachial plexus. I was not, however, at all satisfied with such an explanation. The following facts will, I trust, throw far more light on the causes of the disease, and prove that the water we drink is always to be suspected when the symptoms cannot be fairly traced to cerebral, spinal, or any other obvious causes.

My attention was first attracted to this cause of paraplegia by Mr. Osborne, an intelligent chemist of this town, who requested me to inspect the results of an analysis he had made on some water, in which he had discovered a considerable quantity of lead. He stated that Mr. Weare, from the manner in which several members of a family were affected, suspected that the symptoms—intestinal pains, blueness of the gums, and loss of power in the limbs—might be occasioned in some way or another by saturnine poison. As they had not been exposed to the evaporation of paint or the fumes of lead, he conjectured that the water they were in the habit of drinking was impregnated with this poison, especially as the portion first pumped in the morning had remained in leaden pipes during the night.

From this opinion, he very judiciously determined to have the water that had rested on the lead submitted to analysis. The water, both in taste and appearance, seemed to be perfectly pure. The tests to which it was subjected, were the chromate of potass, the sulphuretted hydrogen, and the iodide of potassium, each of which precipitated a considerable quantity of lead, and at once explained the true exciting cause of the disease.

This fact I held to be of great importance; and it led me to conclude that very many of the cases of palsy I had met with and could not explain, might have been traced to a similar cause. I therefore decided on investigating the water in the very next case that presented itself to my notice. Within a fortnight I had an opportunity of doing so.

Mr. Shelly of Burley, in the New Forest, æt. 42, consulted me for intestinodinia with constipation. These symptoms had affected him from time to time for many weeks, and they were associated with atrophy and loss of muscular power of the upper limbs. He was an agriculturist, and had been in no way (that he knew) exposed to the deleterious effects of lead. The water used for domestic purposes was in appearance and taste good and pure. But he acknowledged that the first portion pumped out in the morning for use, had stood in a *leaden part* of the pump all the night. Of such portion I requested a quart bottle might be sent to Mr. Osborne, that it might be analysed. This gentleman submitted it to the re-agents before named, and each of them precipitated *very considerable quantities of lead!* The chromate of potass threw down a gamboge yellow precipitate, or

the deputation were by courtesy allowed to see the private, uncorrected, and unauthorized outline. How this happened, we shall learn in the sequel. The outline was certainly sent to one of their number, and advantage has been taken, as it will be seen, most unwarrantably, to draw erroneous inferences, and to enter into a laboured argument for the purpose of setting up a man of straw, upon which a sufficient amount of verbiage and invective might be expended. According to their own showing, the authorized report of the council neither met with the opposition of the deputation, nor deserved it; and we are at a loss to comprehend where the grievance actually lies, unless it be in the circumstance that, by the assumed circulation of the private and preliminary outline of the report, among the council at large, to certain parts of which objection is taken, it received those alterations and emendations, by which it ultimately became altogether such as the deputation could approve. With this rough draft we could have no concern, were it not that the deputation of the British Association have thought fit to make certain parts of it public, and we should still pass it over without further notice, were it not that the delegates of the Provincial Association are in consequence charged with misrepresentation. Of the three gentlemen who have attached their signatures to the report of the deputation, one was not a member of the conference, and is not, we believe, a member of the council of the Provincial Association, and can therefore have no sufficient means of judging accurately how far the assertions, to which his name is appended, are correct or otherwise. But we might reasonably ask Dr. Webster and Dr. Marshall Hall, both members of the conference, though not of the council of the Provincial Association, whether they intend seriously to state, that there was anything in the original outline of the report on the subject in question, which is not strictly, literally, and in every sense the truth?

To pursue this matter further, we are neither called upon, nor have we time or inclination. The outline has nothing to do with the proceedings of the association; it forms no part of the proceedings of the council, being altogether a private document, printed for convenience, but not for circulation. But we are desirous of drawing attention to another statement embodied in the report of the deputation; because we deem it of importance that publicity should be given to the manner in which facts are made to bend to private purposes, by those who, for some reasons best known to themselves, appear determined to misrepresent the association on every occasion which they can find for so doing.

We are told, "The foregoing remarks," (re-

marks upon passages objected to in the private outline of the report,) "are rendered necessary, because, on attending the general meeting at York, your deputation found, when the report of the council was read, that some of these statements had been expunged, and others so far altered, that they did not consider it necessary to disturb the unanimity of the meeting by formally opposing the report; but the report had been sent to three hundred and twenty-seven councillors, with the above statements, and no notice has been taken in the official account of the meeting, and of the explanation given in a speech of one of your delegates."

Would any one suppose, from the unconscious and innocent tone of this passage—a passage which professes to furnish a reason for bringing forward the whole of the previous part of the report of the deputation, including the cancelled portions of the private sketch of the intended report of the council of the Provincial Association—would any one suppose that Dr. Webster himself knew, and that, therefore, his colleagues ought to have been informed by him, not only that the statements objected to had been expunged, but that the uncorrected outline which he received was actually forwarded to him by mistake? that this preliminary outline of the report had never been circulated at all amongst the members of the council generally; and that, therefore, the whole argument which he builds upon it, and into which he draws his colleagues, is based upon an assumption which he knew perfectly well at the time to be unfounded and incorrect? We say, advisedly, that Dr. Webster knew that the copy of the report which he received was not authentic—that it was not the report adopted by the council—that it had been accidentally sent to him instead of the corrected copy circulated amongst that body, and that it never had been sent to three hundred and twenty-seven councillors, either for their approbation or otherwise, as the case might be. What, then, are we to think of the deputation allowing themselves thus to be misled, and subscribing to an assertion, of the truth or falsehood of which, as a body, they evidently knew nothing, and which one of their number, the one who has all along acted as their organ, must have known to be unfounded? We stated that we had derived edification and instruction from the tactics thus developed. We have done so, but it is in the way of warning, rather than of precept and example; and much should we regret, could it for one moment be thought that we should be disposed to profit in any other manner by such a left-handed system of policy.

REVIEW.

A Faithful Record of the Miraculous Case of Mary Jobson. By W. REID CLANNY, M.D., &c.

MESMERISERS and the whole host of wonder-workers, must "hide their diminished heads" before this the genuine miracle of Dr. Reid Clanny. We had, in our ignorance, imagined that the days of miracles were long passed, and thought that the servants of the "Divine power" might find a better occupation than imitating the Cock-lane ghost, and tapping three taps on Dr. Clanny's bed-chamber door at the hour of midnight. If the Holy Spirit spake through the mouth of Miss Mary Jobson, some less questionable proposition, we opined, might have issued than "The doctors may disagree, but there is only one who understands her complaint, and that one is Robert Embleton," (p. 20); but like Keshen, of the two Kwang provinces, we are "men of confused and dull understandings," and are unable to divine how "the pure doctrines of Christianity can be directly advanced" by the tomfooleries of Dr. Reid Clanny. In truth, the tale which we shall now endeavour to unfold, is a melancholy example of the strange fantastic tricks whereby the human mind occasionally manifests its aberrations.

Mary Jobson, a girl between twelve and thirteen years of age, was attacked in November 1839, and February 1840, with certain symptoms of a nervous affection, for which she was attended by Mr. R. B. Embleton and Mr. T. Embleton. Mr. Robert B. Embleton was one of the first persons who were favoured with signs of supernatural agency. One day, (says Mr. E. in a letter to Dr. Clanny,) "I heard three loud and distinct knocks, and although I examined carefully about the bed, I could discover nothing that was capable of explaining this mystery."

This is miracle the first. On the next visit of Mr. Embleton to his patient, a much more remarkable miracle was wrought. We shall allow the author to speak in his own words.

"One morning I found the child in bed, severely convulsed, and not seeming to take any notice of those about her; a sheet of paper and pencil lying on a table near the bed. On entering, the mother desired me to sit down, and told me to take down what the 'voice' said, for that morning I was to hear it. I took a chair, and watched the child attentively; she was excessively agitated, and the bedclothes were shaken with the movements. She suddenly opened her eyes, which were before shut, and fixed them on me:—I observed, also, that her mouth was wide open, and the tongue could be seen moving rapidly about. After looking at me for the space of a minute, a voice commenced, and I endeavoured to write down what was spoken to me, which was as follows:—

"I am the Lord thy God, that brought thee out of the land of Egypt;—out of the house of bondage. I am the Physician of the soul. I send physicians and medical surgeons to attend to the internal parts of the body. There have been nine physicians and surgeons seeing Mary Jobson. I am making use of her body as a trumpet. She should have been in her grave about a fortnight and three days since. I have only one medical surgeon to speak to; his name is Robert Blakeston Embleton. On the 13th, three came, but were of no use. Mark—I am thy God, sounding out of the heavens. The surgeon that knew the complaint of Mary Jobson, had been only a year in practice:—he had greater privileges than all the nine. Her brain is like a scalded cloth. I am making use of her body as a bugle. Be not deceived, I will not be mocked by medical surgeons. On the 27th, there was Thomas Embleton; he said, his opinion was, that she would have died, and he was right. Obey my commandments. She has been as dead three weeks. A fortnight before* the water got on the brain. Any one who doubts, may come here, and they shall hear a knock three times. You are mocking me, by wishing to see the internal brain. There is a medical surgeon of the name of Robert Blackeston Embleton, who has been saying to William Grecian, that he would see her brain: but my law shall not be broken. What more can they want than the voice of God? I am speaking out of the heavens. You mock my law, when you do not listen to my words:—marvel not! She is no one's patient.—She is as dead. If they were to persevere, I should send judgments. Two angels should appear with drawn swords in their mouths. If my word had not been there first, (something said about the difficulties of the case,) for the medical surgeons were sent on the earth by me. I am Physician of the soul. I will send a thunder-storm out of the heavens when she is laid in the grave. Twelve angels shall guard it. The Lord's law shall not be broken. Marvel not—for my commandments shall be obeyed first. One surgeon is angry with another. If any one were to persevere to open her head, he should be attacked with drawn swords. My words are to be taken first. This is a miracle wrought on earth. There is nothing impossible to me,—witness Daniel in the Lions' den, and Shadrach, Meshach, and Abed-nego. I am thy God."

Having thus made a vigorous assault upon public credulity, with the aid of Mr. Robert Blakeston Embleton, between whom and the ghost a very edifying degree of friendship seems to have existed, Dr. Clanny proceeds to bring up additional forces, in the persons of relatives or friends of the "possessed." These twelve respectable witnesses testify to a variety of signs and wonders; we regret that we cannot find space for a description of the grotesque manifestations which they describe, being compelled to hasten to Dr. Clanny's "own experience in this mysterious case."

"One day," says the worthy doctor, "Mary

* That time understood.

Jobson informed me, that 'She was aware that I firmly believed in supernatural agency in respect to herself, and added, that I would have several signs before the end of the year,' which turned out to be perfectly correct.

"About the middle of August I had the first sign, which was as follows:—during sleep in the night-time, I was awakened by a very loud blow upon the floor at the side of my bed, which was twice repeated at intervals of seconds. These knocks were so loud, that I thought I heard the floor crash upon its receiving the second and third blows. I instantly sat up in bed, and at the same time said to my wife,—Margaret, did you hear that?' when she replied, (though to my mind, she appeared to be awakened by me, and not by the knocks,) 'I thought I heard something thrown over the wall.' I now proceeded to examine the room, and found all things perfectly quiet, the rushlight half burnt down, and upon drawing back one of the window curtains, I found it was daybreak.

"A few days afterwards, I saw Mary Jobson, when she took the first word and said, 'You had a sign the other night,' mentioning the night, adding, 'You heard the three knocks in your bed-room: your wife heard, but the servants did not hear them: you were not alarmed.'"

The next sign was one of a similar description; the doctor's ghost, it would appear, lacks invention. Just as the doctor was offering up his midnight prayer, on the 9th of October, he heard "a violent blow upon the top of an East India leather chest," which for the convenience of the family had been left in the bed-room. I started to my feet, examined the rushlight, looked at my watch, and found that it was exactly four o'clock A.M."

The next miracle consisted "in the striking a violent blow, as if struck by a hand-whip, upon my bed-room door. The door rang from the blow, and I candidly acknowledge that I started with surprise, but I soon recovered my usual tranquillity, and passed a very agreeable night.

The fourth miracle was somewhat different, though not less wonderful.

"Not long after this sign took place, I was one morning, after breakfast, sitting in a musing state near the fire, every thing in the room being perfectly quiet, when I observed a large printed card to come down in a twirling manner from the mantel-piece, and fall at my feet. This card had been firmly placed among the legs of a pretty large figure of a horse in marble, and could not be displaced from its position by any common agency. I was fixed in my chair with astonishment. It is needful to remark, that in this card, Mary Jobson was greatly interested. I was told by her some time afterwards, the kind of agency which was in operation, but as I have forgotten the particulars, I never took occasion to make questions a second time upon this subject.

"These four signs occurred, as predicted by Mary Jobson, before the end of the year 1840."

Such, reader, are the miracles of Dr. Reid Clanny! What vapour can have bewildered the unhappy man's brain?

ST. PETER'S HOSPITAL, BRISTOL.

Practice of Mr. T. GREEN.

ACUTE INFLAMMATION OF THE EYE.

ABSCESS OF THE CORNEA.

JOSEPH AYRES, æt. 52, was admitted into St. Peter's Hospital on February 25th, 1841. He has been suffering for some time from an ulcer in the leg. About a week ago his left eye became afflicted with active inflammation of the organ; he has been bled, and taken calomel and opium every second night, and had a blister applied to the neck, and vinum opii dropped into the eye. On examination, the conjunctiva is in a state of acute inflammation: this membrane is of a florid red colour, and much swollen; the cornea is in a state of nebulous opacity throughout, with numerous distinct red vessels traversing its lower half; there is a large ulcer on the right side, near its junction with the sclerotic; considerable sero-purulent discharge from the eye; vision very imperfect; complaints of pain in the head and eye; pulse quick, small, and hard; tongue white. Mr. Green directed the temporal artery to be opened. Calomel, two grains; opium, one-half grain thrice a day; lead lotion, tepid, to be constantly applied.

27. Twelve ounces of blood were taken from the artery: the conjunctival inflammation is less; pain in the head and eye relieved. The cornea remains in the same state as to vascularity and opacity; the ulcer is unchanged. A blister to the back of the neck; continue pills and lotion.

March 1. General appearances of the eye the same; there is to-day a distinct abscess in the cornea near its lower edge, towards which numerous large vessels take their course. Eight leeches round the eye; continue the pills and lotion.

3. Inflammation of the conjunctiva is reduced; the vascularity of the cornea is also lessened. Blister to the neck; a pad wetted with lead lotion to be constantly applied; continue pills.

5. Symptoms the same; eight leeches round the eye.

7. His mouth and gums are affected; eye much better; the inflammation both of conjunctiva and cornea is lessened; chemosis entirely gone. Omit the pills; blue pill, three grains; opium one-half grain every second night; blister to the neck.

9. Vascularity of the conjunctiva reduced; the abscess in the cornea is gone, and its place occupied by a large deep ulcer; the opacity of the cornea is reduced, and the vessels are less numerous, but there is considerable vascularity in that part of the sclerotic lying near the ulcer in the cornea; vision less clouded, has diarrhœa; complains of cough. Blue pill, two grains; opium, one-half grain, at night; cough mixture.

11. Inflammation of conjunctiva is nearly gone; vascularity in the sclerotic remains; that of the cornea is less; there are now two ulcers in that membrane, to which a few distinct large vessels pass from the circumference of the cornea; the latter is still nebulous. Vision improved; diarrhœa checked; continue the pills at night; blister behind the ear.

16. Eye much improved; vascularity of all the external coats reduced; vision less clouded. The ulcers in the cornea are diminishing in size; bowels

regular. Blister behind the ear, and to be kept open with *unguent: resin:*; continue pills.

22. Ulcers have healed; cornea nearly of its natural appearance; all inflammation of the organ gone; vision much improved. Discharged April 22nd.

STRANGULATED FEMORAL HERNIA. REDUCTION WITHOUT DIVISION OF THE SAC.

Richard Durham, æt. 68, was admitted into hospital on April 6, 1841. He was in one of the medical wards of the hospital about three weeks ago, labouring under gastric fever, accompanied by continued vomiting, from which he recovered, and was discharged. He has had constipation of the bowels for the last two days, for which he has been taking purgative medicine without effect; has been sick during the day, and felt some slight pain about the abdomen; has had double hernia for some years.

Mr. Green having been sent for, saw him at 9 P.M. On examination, there was found an inguinal hernia on the right side, and a femoral hernia on the left; the former, which is small, can be reduced without the slightest difficulty. The tumor on the left side is about the size of a small hen's egg, is exceedingly tense, but free from all pain and tenderness; the skin is of a natural colour; the contents of the tumor cannot be returned. Complaints of some pain about the abdomen, which is soft, and free from tenderness; felt sick, and vomited during the day; pulse natural. An enema was given in the evening, which brought away one hard evacuation. To have an enema of infus. of senna and oil of turpentine immediately. At 11 P.M. he remained precisely in the same condition as before. It was now found that the hernia could not be reduced, but that as yet no marked symptoms of strangulation have appeared; it was therefore determined to wait until morning, and watch the progress of the case. To repeat the enema.

April 7. 8 A.M.—Tumor of the same size and appearance; still irreducible; no pain upon pressure over the abdomen; has vomited during the night.

1 P.M.—The skin covering the tumor has changed colour since morning; it is now slightly red; he has vomited some feculent matter; complains of increased pain over the abdomen; countenance anxious.

The surgeons of the hospital having met in consultation, it was decided that the operation should be at once resorted to; it was immediately performed by Mr. Green.

The skin and superficial fascia having been divided, the adipose tissue lying beneath was cut through and turned aside, together with some small lymphatic glands; the fascia propria was then brought into view, and freely divided. The stricture was at the usual situation, at the crural arch; its lower edge was slightly cut by a few careful strokes of the knife, and an attempt made to return the hernia, without opening the peritoneal sac; a slight degree of steady pressure kept up for a short time was sufficient to accomplish this object; the gut was entirely returned into the abdomen, with the usual gurgling noise, leaving the peritoneal sac flaccid and empty. The wound was filled with lint, and a firm compress and bandage applied.

8 P.M.—He feels quite easy, passed two free evacuations; has had no return of vomiting; no pain upon pressure in any part of the abdomen. Is thirsty; wound rather painful. To have tea and barley-water freely.

April 8, 1 P.M.—Is free from all uneasiness; no pain or tenderness over any part of the abdomen; some soreness over the wound; bowels have not been opened since last visit; pulse 80. To take two table-spoonfuls of carb. and sulph. of magnesia mixture every three hours, until the bowels have been opened twice. To have tea and gruel.

8 P.M.—The bowels have been freely moved since morning; there is slight pain in the abdomen, above the seat of the hernia; no tenderness or vomiting; tongue clean; pulse 80.

9. Feels quite well, being free from pain and uneasiness of every kind; bowels open.

June 27. Has had no unfavourable symptom whatever since the last report; the bowels have acted regularly; and he has felt well in every respect. The wound granulated, contracted, and completely cicatrized under water-dressing. Discharged cured.

CHILDREN'S HOSPITAL, PARIS.

CASE I.—Pneumonia—Peculiar contraction of the thumbs and feet—Softening of the central parts of the brain, with chronic meningitis.

CHARLES LEMERLE, four years of age, was admitted into hospital on the 20th of July, 1836. He had been ailing for the last six months, coughed occasionally, and lost flesh.

21. The child vomited seven or eight times this morning; skin not very warm; pulse 120; respiration deep, 50; the pulmonary expansion is diminished on the right side, where the sound, on percussion, is dull; there is some souffle at the summit of this lung, with sub-crepitant râle behind; has passed four liquid stools. Gum draught. Two cupping-glasses on the right-side of the chest. Foot-bath.

22. The child lies very uneasily in bed, and emits constantly a short low moan; skin warm; pulse 126; respiration much oppressed, short, 50, arrested every four or five times; accomplished by the action of all the accessory muscles; cough frequent; passed two fluid stools: there have been no convulsive movements, but the hands and feet are the seat of a peculiar contraction. The muscles of the soles of the feet are firmly contracted, and give them a concave appearance. The hands are demi-flexed, from the knuckles downwards, the phalanges being straight and stiff, and the thumb bent on the palm of the hand.

Decoct. of mallows: white oxyde of antimony, twelve grains. Two cupping-glasses to the chest.

23. The child does not moan so frequently, and is less agitated; skin moderately warm, moist; pulse 112; respiration very deep, 36; cough not very frequent; one stool; the hands and feet are in the same state.

Continue remedies. Starch lavement.

25. Moans occasionally; skin not very warm; pulse 120; respiration 50, blowing strongly

through the nostrils; abdomen free from pain on pressure; no diarrhoea; the fingers are less flexed, but the thumb is still powerfully applied against the palm of the hand; the feet are exactly in the same condition as before described; the head seems to be constantly inclined to the left side.

Antimony increased to 15 grains.

26. The little patient was greatly agitated yesterday evening; now moans in a low tone; skin hot and moist; pulse 124; respiration 44; frequent moist cough; subcrepitating râle at the right side of the chest, with considerable dulness of sound; has had some inclination to vomit. The hands, feet, and head, in the same state; abdomen and lower extremities are the seat of a doubtful eruption, resembling measles.

27. The child still moans constantly, and is very uneasy in bed; the nurse says that she never observed any convulsive motions; but that since his admission he has had fits of agitation, followed by blueness of the face as if he were about to choke; whenever he drinks he has a short access of suffocation, with a kind of broken cough, between croup and hooping-cough; this is always brought on by drinking, and not observed at other times; flexion of thumbs the same, but the fingers are less stiff; no diarrhoea.

A blister to the right side of the chest.

29. Coughs a great deal, and moans constantly; looks very thin and weak; skin warm; pulse 130, small; respiration 32; each expiration is twice as prolonged as the inspiration; the arms and fingers are relaxed, but the thumbs and soles of the feet are still contracted; the eruption noticed on the 26th has now appeared on the chin, and is more distinctly that of measles. No diarrhoea.

Although, during the course of the disease, the child had never been drowsy, he now rapidly sank into a state approaching to coma, and died on the 30th at mid-day.

Body examined twenty-two hours after death.

Head.—Dura mater healthy; the arachnoid, which lines the upper surface of the brain, is everywhere transparent; there is no infiltration or trace of inflammation in the membranes of this part; the convolutions have a flattened appearance, as if there were fluid in the ventricles. Behind the commissure of the optic nerves there is an infiltration of gelatinous-looking serum, and also between the two lobes of the cerebellum, in the median fissure. On removing the arachnoid which covers the fissure of Sylvius, some granulations are found in the pia mater, which is here considerably injected. The lateral ventricles contain about three drachms of fluid, but the whole of their parietes, the lower portion of the corpus callosum, and the central white parts, are reduced to a mere pulp, without injection or mixture of pus, &c. The corpora striata and thalami are pale and soft. The rest of the cerebrum, cerebellum, and spinal marrow, are perfectly healthy.

Chest.—Left lung healthy, but somewhat congested at the base; the upper part of the right lung is also much congested; the lower portion is nearly solid, and contains a nodule, about an inch square, of tissue, completely hepatised. The smaller bronchial tubes of this portion of the lung are deeply injected, and in the hepatised point contain some pus.

The abdominal viscera were all healthy. Near

the termination of the small intestines there were some patches of injection, without softening of the mucous membrane.

CASE II.—Slight symptoms of affection of the head—Death—Traces of inflammation of the membranes of the brain—Extensive softening of the mucous membrane of the intestines.

Pierre Guinon, four years of age, was admitted on the 3rd of August, 1835. The child has been ill for the last eight days; he has had headache, which continued for several days, with vomiting, pain in the abdomen, and some heat of skin, but no diarrhoea or cough. When brought to the hospital, he vomited once a greenish fluid, but did not complain of headache; he was a little drowsy, but manifested no other symptom of cerebral disease; even when the head was shaven, he did not seem to suffer any pain; no change of colour in face, convulsive movements, strabismus or delirium, were observed on his admission, nor was the abdomen tender; no lesion of motility, or sensibility; pulse irregular, 56 to 64.

Purgative lavement; sinapisms to the legs.

4. The child lies quietly in bed, in a drowsy state, with the legs drawn up towards the belly; he does not answer when spoken to; the expression and colour of the face are natural; skin moderately warm; pulse 66; respiration regular, 32; the left eye-lid contracts strongly when an attempt is made to uncover the eye-ball; the right one is easily raised; pupils natural; no strabismus, or other lesion of motility; passed a quiet night, and did not complain of pain in the head; no vomiting; passed one stool.

Continue purgative and sinapisms; if the drowsiness persist, two leeches behind each ear, and cold lotions to the head.

As the drowsiness had increased on the fifth, the leeches were applied, and six grains of calomel were administered, in three doses.

6. Still lies in the same dull, listless way in bed, but when roused he sits up and answers; the eye-lids are half closed, the pupils natural, if anything rather contracted; the left eye-ball is occasionally affected by a convulsive strabismus, which lasts but a moment; skin cool; pulse hard and irregular, 116; respiration very deep, regular, and sighing, 20; the abdomen is full and soft; appears to be slightly tender over the region of the bladder; tongue dry and dirty; lips clean, but also dry; no evacuation. To-day, for the first time, some change of colour in the face was observed, and some lesions of sensibility and motility: thus the right arm may be pinched pretty strongly without occasioning any cry, while this morning the skin of the back of the head was extremely sensitive; the motile power of the right arm is also diminished, but there is no stiffness or convulsive movement. The child, although he lies apparently as if asleep, without moan or complaint, yet turns rapidly from one side to the other every five minutes. The pupils were widely dilated, when examined at the end of the visit.

Calomel nine grains; cupping glasses behind the ears; cold lotions to the head; sinapisms to the legs.

7. The boy appeared to be much better to-day for a short time; he sat up in bed, conversed and drank with facility, but soon relapsed into his old drowsy state; the skin is now very warm and dry;

pulse 132 to 140; respiration 28; forehead hot, and complains of pain in the frontal region; eyes natural, no strabismus. Has had five or six very abundant evacuations since twelve o'clock yesterday; tongue brown and dry; abdomen free from pain; no delirium at night, but slept a little. The temperature of the arms is much higher than that of the legs, and the sensibility of the limbs is now equal on both sides, but the right arm still appears to be weak, for the child refuses to use it when he drinks. No sudamina or rose-spots on any part of the body.

Purgative lavement; lemonade.

8. In the evening of the 7th there was a considerable access of fever, with pain in the abdomen; pulse irregular, and 132; he was delirious during the night. The pulse is now 144; respiration 32 to 40; skin warm; great thirst; complains occasionally; abdomen very tender over the left side; tongue very dirty, swollen, and red at the edges, but no mercurial smell from the mouth, nor tenderness of gums; eyes natural; the left pupil is, however, very slightly dilated; he tosses about the bed, but does not complain of headache; no lesion of the sensibility, nor any paralysis or contracture of the muscles.

In the middle of the day a bath was administered, after which the child passed five or six stools, then became cold, and died without a struggle at nine o'clock P.M.

Body examined thirty hours after death.

Head.—The pia mater which covers the superior surface of the brain, presents a fine capillary injection; there are a few miliary granulations in the cellular tissue over the right hemisphere, and some more attached to the left hemisphere, in the great fissure of the brain, where the membranes have been affected with chronic inflammation, for in a few points they are thickened and adherent to the nervous substance. The substance of the brain is very moderately injected, and the central parts are all of healthy appearance and consistency; the lateral ventricles do not contain more than a teaspoonful of fluid, and their parietes are in a normal state. At the base of the brain, the membranes are free from lesion, except in the right fissure of Sylvius, where there is a very slight deposit of yellowish matter, with adherence of the pia mater to the cerebral substance, but there are no granulations in this part of the membranes.

Cerebellum and spinal marrow healthy.

Chest.—The lungs are soft and healthy looking anteriorly; posteriorly they are congested, and contain a few crude tubercles, but are everywhere free from inflammation. No tubercles in the bronchial glands.

Abdomen.—There is no fluid in the abdominal cavity, nor any trace of inflammation of the peritoneum. On examining the mucous membrane of the stomach, several brownish-coloured patches are discovered in several points where the mucous membrane is very soft, but no other marks of inflammation exist.

The small intestines contain a quantity of greenish fluid, holding in suspension a number of thick white flocci, which resemble coagulated white of egg, and five lumbrici; the whole of the mucous membrane is in a state of the most perfect softening, but without trace of injection or ulceration at any point; mesenteric glands free from

tubercles; a few miliary tubercles under the peritoneal coats of the liver and spleen, but none in their interior, or in the kidneys. The other abdominal viscera are perfectly healthy.*

WAYS AND MEANS OF GENERAL PRACTITIONERS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—If it be the opinion of the profession that the subject of medical reform is at present in so flourishing a state, so full of promise, and progressing so nicely as to leave nothing to be wished, nothing to be apprehended; then any farther observations respecting it may properly be regarded, not only as unnecessary, but impertinent. If, on the other hand, there be amongst us those who have misgivings, who can find reasonable grounds to fear that a good measure may not result from all the discussion and pains that have been taken with it, or do not feel quite confident of any issue whatever; then may it be justifiable in any member of the profession to communicate his views and opinions affecting a subject so vitally important, not only to himself individually, but to the whole medical public. Amongst this latter number I profess to be one: and therefore claim the privilege of your widely circulating pages to lay before my professional brethren opinions I have long entertained, and which matured reflection has tended to strengthen and confirm.

Medical reform is acknowledged to be of vast extent, embracing a multiplicity of subjects, and affecting a variety of interests; appearing, on the whole, too wide and unwieldy to be properly disposed of by an individual act of parliament,—a point admitted in the report of the proceedings at York. The state of the profession itself, its education and polity; the chemists and druggists, their unlawful practices and quackery, all of which call for legislative interference, constitute a whole, quite overwhelming to contemplate. But if you divide the labour, take an isolated part, and fairly dispose of that, the task of dealing with the residue becomes comparative light and easy. Acting on this principle, I purpose calling the attention of your readers to that not least interesting part of the subject; which embraces, and may properly be designated, the *ways and means* of the general practitioner.

When medical reform first became the subject of agitation, I confess to have been at a loss to comprehend its object; feeling, however, in common with my colleagues, that some important change was pending, I watched steadily its progress, and have traced it to its present position, but not without serious apprehension, which has increased rather than diminished, that disappointment was destined to be the ultimate result. The superior standard of education and self-government, which have now become the objects of peculiar solicitude, have, doubtless, many claims to

* In speaking of this case, M. Guersent remarked—"Pour le guerir d'une maladie incurable, nous avons tué notre malade," conceiving that the abdominal symptoms were occasioned by the calomel.

our attention, but to neither nor both can the majority of practitioners now established look for that benefit expected at the hands of the legislature. The present standard of education is allowed to be very respectable, and there has been already evinced by the colleges a disposition so conciliatory and liberal, as to satisfy many that they carry the welfare of the profession at heart, and are disposed to do their utmost to promote its interests.

I remember the circumstances under which the Society of Apothecaries obtained the "Apothecaries' Act," as it is generally called, and they were very similar to those which prevail at the present time. An association of medical practitioners existed in London, whose especial object was the obtaining of an act of parliament, for the purpose of reorganizing the profession, and to restrain chemists and druggists from practising medicine. The subject was fraught with difficulties, that hindered its progress from year to year, until the Society of Apothecaries took the affair into their own hands, and obtained the act of 1815. The chemists and druggists on that occasion, as well as at the present time, had recourse to meetings and other demonstrations of power and influence, which tended greatly to modify that part of the law affecting their interests; and thus it came about that the act of 1815 proved inadequate to accomplish the original intention, and has failed in rendering that good to all parties which was expected from it, and which it was intended to supply. That the education of the apothecary has been greatly improved under its operation, must be admitted by all. But when you have said that, you have said all; for it must be confessed that it has failed, miserably failed, in two most important particulars, involving the ways and means of the general practitioner, inasmuch as it does not empower him to recover for his professional services, or defend him against the encroachment of the chemist and druggist. These circumstances together constitute, I may, without risk of contradiction, boldly declare, the heaviest grievance under which the profession labours, and call loudly for an immediate amendment of the act. To these alone I shall therefore confine my attention, under the conviction that if an act of parliament could be obtained to meet these difficulties, little more would be wished for by the great body of general practitioners. The necessity of such enactment is so apparent, so generally acknowledged by the public as well as the profession, that I cannot believe there would be much difficulty in obtaining it, if emanating from a proper source, and requiring no more than is essential. The chemists and druggists are a very formidable body, and their opposition, I am fully aware, may now, as formerly, tend greatly to hinder the progress of any measure calculated injuriously to affect their interests; but that measure of reform which I am about to propose is so strictly just to all parties, that, however the chemists and druggists may find themselves aggrieved, there will be no remedy but submission.

I consider the position which the chemists and druggists now fill, to be such as does not properly belong to the *trade*; they have, in fact, usurped the proper business of the apothecary, in dispensing medicines, and very frequently in prescribing

for the sick;—and how have they become possessed of this privilege? They sell medicines *cheaper* than the apothecary, and the sale of *medicines*, not drugs, merely as drugs, is now the staple article of their trade; cheapness is the order of the day, and so long as the public can buy medicines of the druggist at half the price which the apothecary charges for them, there can be no doubt to which preference will be given. Whoever will take the trouble to reflect for a moment, will discover that to this circumstance chiefly, if not entirely, it is that chemists and druggists owe their existence and present position in public estimation. The apothecary having no power to recover reasonable remuneration for his services, except through a charge for medicines, his price appears exorbitant when compared with the druggist's price for the same articles. The value of medical science, which enters into and forms the principal part of the apothecary's bill, (the amount of which, after all, is often an inadequate reward for his time, skill, and judgment,) is entirely lost sight of by the public, as exhibited in that patronage given to the druggist, to which the apothecary has clearly a superior claim. Another great evil resulting from this inability to recover for time and services, is displayed in the circumstance of the medical man being compelled to supply medicines to his patients as a means of remuneration, or go without any recompense whatever. Hence, too, has arisen the great scandal attached to the practice of the general practitioner of giving his patients superfluous medicines; an imputation which, in the very nature of things, is sometimes likely enough to be the case, for so true is it, that,

"Whatever point you'd gain or wish to shun,
Make it man's interest, and the thing is done."

On this occasion, however, it is not less a matter of interest than positive necessity; for my own part, without pleading guilty to the charge of giving superfluous medicines to my patients to insure a decent remuneration for my professional services, I freely admit, that one of the most unpleasant, if not the most difficult, part of the practice of medicine consists in *thus* adapting means to an end.

Not wishing to extend my paper beyond what is essentially necessary to establish my case, I forbear to enlarge upon the subject, having thus briefly made it apparent that the act of 1815 has failed to correct what has now become a very serious evil, involving alike the interest of the medical profession, and of the community at large. I forbear to enter upon the general subject of medical reform, or to give any opinion of the measures proposed in the various bills offered for consideration during the last session of parliament. The measure I advocate is most essential and of immediate importance, nor will it tend in any way to hinder, but rather to advance, the progress of other and more extensive measures.

The profession must not, however, expect too much at the hands of the legislature, and I am quite of opinion that it would be expecting a great deal too much, to require the power of recovering a *double* remuneration: if we are empowered to recover for our professional services, we are certainly no longer entitled to the privilege of recovering exorbitant charges for medicines. But why need there be *two prices* for medicines? Why

should the apothecary charge more for medicine than the druggist? There will certainly be no necessity for his doing so, if the legislature empower him to recover reasonable charges for his professional services on all occasions. It would therefore be desirable, as a protection to the public, that such an act of parliament should contain a clause to the effect, that "after the passing of such act, it should not be lawful for qualified practitioners to recover unreasonable charges for medicines;" the reasonableness of such charge to be decided by a board of trade, composed of equal numbers of apothecaries, chemists, and druggists, and of other persons; the taxation of such board being final, and subject to no appeal. And what would be the probable effect of such a law? It would suddenly raise the science of medicine to its proper place in public estimation, and establish the *trade* of the apothecary *de novo* on *honest* principles: and how would this affect the chemist and druggist? It would at once deprive him of the advantage of competing with the apothecary at such fearful odds. The public would soon discover that the medical man is a better judge of the qualities of drugs than themselves, and from his knowledge of their effects upon the human body, would discover also his superior claim to preference, the price being the same. The druggist would, therefore, very soon lose the most lucrative part of his trade, and find it necessary to make some addition to the already long catalogue of his commodities; perhaps ironmongery or haberdashery, or he might get a spirit license, and, instead of killing her Majesty's subjects by the maladministration of drugs, deal out poison by wholesale or retail under the full protection of the law.

To those of my colleagues who have not hitherto taken this view of the subject, the proposition I have made may appear anything but desirable; let not its novelty be brought against it, or its projector be taxed with temerity, rather than prudence. The present state of the pecuniary affairs of the profession is allowed to be most unsatisfactory: the remedy I offer promises the most salutary effects, and I invite every general practitioner in the united kingdom to give it most serious and immediate consideration. I grant the proposal to reduce the price of medicines to half or less than half of that which has hitherto been charged, is a startling proposition, calculated to create alarm rather than confidence. It is, however, an absolute *sine quâ non*: the very foundation on which I seek to raise the estimation of medical services, and give to them an acknowledged and determined value, quite independent of, and unconnected with, the sale of medicines; to establish a new character for the general practitioner, by exhibiting him in his true position as a man of science, by teaching the public to regard his professional services as the article of value, rather than the drugs he prescribes and supplies for their benefit. Nothing short of this will really avail anything against the encroachment of the druggist on the one hand, or the disposition of the public to oppress us on the other—a disposition which the working of the poor-law has manifested beyond dispute.

I am fully sensible the public cannot afford to pay medical men extravagantly for their services. The system I advocate will impose no burthen which they may not cheerfully sustain, and which they are not able to bear, while it will insure to us

a certain remuneration, on all occasions, that in the aggregate would be satisfactory; we should lose nothing by the change, but could not fail to gain honour and advantage in a variety of ways; but *never*, while we continue to depend upon high prices for medicines, will our pecuniary condition be improved, or our professional character elevated in public estimation.

The proceedings of the Provincial Medical and Surgical Association, at their meeting at York, affecting the subject of medical reform, having assumed a character of moderation, encouraging to those who are not prepared to go the whole length of the projected measures which threatened so injuriously the interests of existing institutions, have induced me to give publicity to these views, which I have frequently discussed with my colleagues, and with persons not of the profession, and always with the same result—a ready acquiescence in the desirableness of a change calculated to effect such general benefit. With respect to the chemists and druggists, I would say, as a general principle, leave them alone; the public have made them what they are, and if the medical man will but act honestly towards the public, which it is the bounden duty of the legislature to empower him to do, the fate of the usurper will be soon decided. As the matter stands at present, it is cent. per cent. in his favour,—a bait which human nature cannot resist.

I have not lost sight of the important clause, to empower the general practitioner to recover reasonable charges for professional services, over and above his charge for medicines, contained in the bill introduced into parliament last session, and which may probably form part of any other bill to be brought in hereafter, as it is hoped, under the auspices of her Majesty's ministers; but am decidedly of opinion, that being but a half measure, it will prove inadequate to the emergency, and fail to effect that complete change in the character and position of the general practitioner, which is most desirable, and without which his condition will not be materially improved.

Not wishing to trespass too much upon your space, I forbear to specify the scale of remuneration for professional services, which it would be desirable to obtain from the legislature, to meet an equalization in the price of medicines, reserving that for some future communication, a part of the subject not necessarily attended with difficulties insuperable, the equity and desirability of the *principle* for which I contend being admitted; and I am really at a loss to discover what argument can be brought against a proposition which offers an equal measure of justice to all parties. But "all have their hobbies;" admitting this to be such, I trust it may prove a sturdy beast, capable of bearing the whole body of general practitioners out of the slough of difficulty in which they are now plunged.

I am, Gentlemen,
Your obedient servant,

A MEMBER OF THE PROVINCIAL MEDICAL
AND SURGICAL ASSOCIATION.

ACADEMY OF SCIENCES.

(Paris, September, 6.)

ELECTRICAL PHENOMENA IN ANIMALS.—M. Matteucci addressed a note upon this subject. The conclusion which he draws from his experiments, and which seems to him to explain all the phenomena of this kind, is the following. If the internal part of a muscle, either alive or recently alive, be made to communicate by means of an electric wire, or a nerve with any other part of the animal, an electric current is immediately established, and passes from the muscle to the part which is not muscular. The nerve serves as a conductor to the electric matter which resides in every point of the muscular substance.

CERTAIN FORMS OF AMAUROSIS CURED BY DIVISION OF MUSCLES.—From the analogy of what takes place in certain cases of strabismus, complicated with weakness of sight, M. Petrequin was led to think that some forms of amaurosis depend on pressure arising from contraction of the muscles of the eye. The following are examples.

CASE I.—A workman, eighteen years of age, was admitted into the Hôtel-Dieu of Lyons, for a disease of the great toe, which required amputation; he also laboured under partial amaurosis of the left eye, which it was impossible to account for by any of the ordinary causes of this disease. The author now remarked, that during certain motions of the eye there was tendency to deviation inwards; and after having paid considerable attention to the case during a month, he ascertained that the spasm of the muscles of the eye exercised considerable influence over vision. On the 8th of May, 1841, he divided both internal recti muscles; the sight of the left eye was instantly improved, and within five weeks was fully equal to that of the right eye.

CASE II.—A cotton-spinner, seventeen years of age, was admitted into hospital for an accident occasioned by machinery. He had old amaurosis of the left eye, which had come on without any known cause; he was unable to reckon the fingers when held up before him, or recognize a pair of scissors, &c. Here, as in the former case, during certain movements the eye seemed to have a tendency to turn inwards. The two internal recti muscles were divided on the 20th July, with immediate benefit. When the patient left hospital three weeks afterwards, he could read large print, and distinguish persons at a distance of one hundred paces.

SUBCUTANEOUS MYOTOMY IN A CASE OF SPASMODIC ENTROPION.—Although entropion generally depends on some band, excess of integument, malformation of the tarsi, &c., it is sometimes occasioned by permanent contraction of the orbicularis muscle. Such being the case, the obvious remedy is division of the contracted muscle.

CASE.—A workwoman, forty-five years of age, had complete entropion of the right eye-lid; the lower lid was turned inwards, and folded exactly in the direction of the fibres of the orbicularis muscle; on placing the finger over the lid, and allowing light to fall upon the eye, an increased contraction of the muscle could be felt; the state

of spasm was permanent. On the 22nd August, M. Petrequin performed the following operation. Having extended the lower eye-lid by means of a forceps, a fine bistoury was passed under the orbit, and near its middle part; the point was then brought near to the tarsal edge, passing under the orbicularis muscle; this done, the blade of the knife was withdrawn, cutting the muscle across as it came out; the action of the blade was favoured by gentle pressure with the finger on the skin over it. The puncture healed in twenty-four hours.

The memoir of M. Petrequin concludes with a case of opacity of the cornea, which was very considerably relieved by bringing the clear portion of the cornea opposite the pupil, by division of the superior oblique muscle.

ACADEMY OF MEDICINE.

(September 7.)

CONNEXION BETWEEN ABUNDANCE OF FOOD AND MORTALITY.—M. Melier read a memoir on this subject, which was listened to with profound attention. The author demonstrated in the clearest manner, from the history of various nations, that the mortality of a population is invariably proportionate to the price of subsistence. A political economist has said, "Where a loaf grows, there a man is born." The metaphor expresses a fact; if we represent the variations of mortality, and of the price of food by two curved lines, the latter will correspond in the most remarkable manner.

ARTIFICIAL ANUS IN CASES OF OBLITERATION OF THE INTESTINE.—Since his last communication to the academy, M. Amussat has performed this operation three times. In the first case, the patient laboured under cancer of the epiploon, which obstructed the sigmoid flexure of the colon, and caused complete retention of the fæces. M. Amussat exposed the ascending colon posteriorly, fixed it to the integuments, and made an incision into it. Fæcal matter was discharged in abundance, and some time afterwards several evacuations per anum took place.

The second patient, 60 years of age, had likewise, and from the same cause, an obstruction of the bowels, which lasted forty-five or fifty days. The cancer occupied the upper part of the rectum. The descending colon was opened, and a large quantity of fæcal matter evacuated. No inflammatory reaction took place, but the woman died in ten days from the effects of the cancerous disease.

In the third case, constipation suddenly came on, in a patient 47 years of age, who had previously enjoyed the best health; there was no means of judging whether the obstacle was seated in the small or in the large intestines. Hence, M. Amussat was compelled to follow Littre's method, and opened the cæcum anteriorly. The patient, who was extremely exhausted and weak previously to the operation, died twenty-four hours afterwards. On examining the body after death, the obstacle was found to exist at the point of union between the transverse and descending colons; the cavity of the intestine was here considerably contracted, and it appeared probable that this was occasioned by a small bone which was found in this point.

POST-MORTEM APPEARANCES

IN A

CASE OF FRACTURE OF THE HEAD

OF THE FEMUR WITHIN THE CAPSULAR
LIGAMENT.

By STEPHEN W. WILLIAMS, M.D.

Mrs. M. N. of South Deerfield, the subject of the following case, was not seen by me until after her death. Dr. Allen, her professional attendant, informed me that he had been called to her two or three days before, and found her labouring under excruciating pain in the stomach and bowels, succeeded by retching and vomiting, which continued with almost unabated violence to the time of her decease, notwithstanding the judicious application of remedies.

Autopsy.—The subject was extremely fat; the adipose tissue upon the sternum was more than three inches thick, and upon her abdomen more than four. In the cavity of the thorax we found the lungs not diseased, but the heart and lungs were pressed upwards by the diaphragm, so that breathing must have been rendered extremely laborious upon any exercise. Indeed, we understood this was the fact before her decease. The heart was healthy, except that it was so much covered with fat as to obstruct it in the regular performance of its functions. The stomach was about the ordinary size, and healthy; the intestines were unusually filled with offensive gas. The liver was little larger than natural: the upper part of it was mottled with yellow and green, and the substance of it was in a state of softening, and our fingers easily passed through the rotten mass in all directions. The gall-bladder was unusually distended with bile, as black and as thick as tar. One of the kidneys was also softer than natural.

During the dissection, it was mentioned that nine years before she had had a fall, and fractured what was supposed to have been the neck of the thigh bone. Her surgeon supposed that they had reduced it at the time of the accident, but she ever afterwards continued to be lame, and she never subsequently walked a step without the assistance of friends or crutches. On examining the limb, before cutting into it, we found it shortened, the foot turned inwards, so that if she ever bore the weight of her body on that side, it must have been upon the outside of the heel. The ham-strings were contracted, but the limb itself had not shrunk. There was an old cicatrix upon the upper and inner part of the gastrocnemii muscle of considerable size, which was from an issue which had formerly been opened there, but for what purpose I do not know. The limb affected was the *right* one. Upon cutting into it over the trochanter, the same mass of fat presented itself in the cellular membrane as in the abdomen, but the muscles were small. When the knife reached the trochanter, and the dissection was made a little more towards the joint, it was discovered that there was a fracture directly through the head of the bone within the capsular ligament, and that the fracture had never been united. The ends of the fracture had been worn smooth by attrition, and they were covered by a kind of cartilaginous matter, and an artificial joint was thus formed. The divided or split head

of the bone was left in the socket, but it had never been dislocated. The dissector removed it with a great deal of difficulty. The other end of the bone was then laid bare to a considerable extent, and sawed off six inches from the trochanter, for the purpose of saving the specimen. Upon applying the saw to the femur, it was so soft that three strokes of the saw completely severed it. The earthy portions of the bone appeared to be nearly absorbed, but the gelatinous and animal portions of it were so abundant that there was no shrinking of it as to size. This dissection seemed to verify the assertion of Sir Astley Cooper, that, "when the head of the thigh bone is broken in the socket within the capsular ligament, the bone never afterwards unites."* It strikes me now that I have seen a specimen in a dead preparation at the Albany Medical College, where I was politely invited to attend a lecture upon injuries of the hip joint, by Dr. March, in the fall of 1839, where the head of the bone was broken within the ligament, and afterwards united. I may, however, be mistaken in relation to the fact. At any rate, I feel pretty confident I saw some specimens where union had been effected, where the fracture was partly within and partly without the capsular ligament.

This case was extremely interesting to me, as I have very frequently been called to cases of injuries of the hip joint in persons over 60 years of age, where I have been satisfied there has been no dislocation, but where the patient has remained permanently lame for life. In some cases I have been persuaded that the injury has been in the ligament itself, and in some I think there must have been a fracture of the head of the bone within the ligament. In some, perhaps, there may have been a fracture of the neck of the bone itself.

It was also very interesting in another point of view, as illustrating the credulity of the public at large in relation to *natural bonesetters*. In the year 1827, a man by the name of —, styling himself a natural bonesetter, was invited into this town by the friends of an old lady, who, several years before, had fallen, and, as she supposed, had dislocated her hip, though all the physicians whom she consulted, and they were pretty numerous, assured her that such was not the fact. From the time of the accident to the time when she saw —, she never walked without crutches. The long expected day at length arrived when he appeared, and was to perform the miracle of reducing the dislocated bone. Public expectation was on the tiptoe, and people gathered from all parts of this and the neighbouring towns to witness his mighty feats of wonder. He examined the patient, pronounced the bone dislocated, declared it could be easily reduced, and set apart the evening for the operation. In the mean time patients flocked to him from various parts of this section of the country, inquiring of him whether their bones were not dislocated, and soliciting his advice and assistance. Hundreds consulted him, some from curiosity and some from faith. He declared every one of them to have dislocated bones, some shoulders, some hips, some knees, ankles, toes, elbows, wrists, fingers, &c., &c.; many had nearly all their joints completely out of place, and they had been so for a great number of years, and for from two or

* This rule is now known not to be without exceptions.—Ed.

ten dollars each he could easily reduce the whole of them, and enable the individuals to walk and otherwise resume their functions with pristine energy. The principal theatre of his operations was a bar-room, and it was said he often had recourse to the jolly god at the bar-room between his manipulations. He generally began by setting every toe and finger in the body before he arrived at the principal joint to be reduced, so that it was no uncommon thing for him to say that he had reduced twenty or thirty bones in one individual, who never before knew that he had a single dislocated bone. And still the gaping multitude looked on and actually believed that he performed all these miracles, and really found every bone dislocated which he pulled upon. Even the evidence of the senses was disregarded, and some who had actual dislocations for years, which could never be reduced, were declared to be restored, although they walked as lame after the operation as before. At this very time there are some who continue to believe that he performed all that he professed to do, although they now, at the distance of almost three years, walk as lame as ever. But the great body of the people are now fully convinced of his charlatanic imposture; and, were he to visit us again to-morrow, he probably would not find half a dozen dupes to operate upon, although it is believed he carried away more than one hundred dollars from this village for his services for a little more than half a day. It is said he never visits the same place a second time on account of his impostures.

He visited Mrs. M. N., the patient whose limb we dissected, at Bloody-brook, and told her that her hip was dislocated, and that he could easily reduce it. He accordingly attempted it, and put her to excessive torture, and declared that he had set the bone, for which he was paid ten dollars; and, as he said this was a very bad case, he must have ten dollars more, which her husband promised to pay when the patient entirely recovered. The above dissection abundantly proved the accuracy of his prognostications and the success of his operations, and how completely he reduced the dislocated thigh!—*American Journal of Medical Science.*

PAROCHIAL MEDICAL RELIEF.

MR. HARVEY of Castle Hedingham has forwarded to us a letter on this subject, in which he advocates the following measures:—

1. In order to remedy the inconveniences caused by the present extent of the districts, persons who are unable to pay for medical attendance should be entitled to apply to one of the nearest legally authorised medical practitioners, the latter to be remunerated by the board of guardians; if the case be serious, or likely to prove so, the patient to be immediately sent to the union-house, and in no instance is the surgeon, first called, to keep the patient in his own hands for more than seven days.

2. There should be several wards in every union-house, appropriated solely to the use of the sick.

3. Each union-house should have a surgeon and

assistant-surgeon, who should be restricted from private practice.

4. The present assistant poor-law commissioners to be replaced by a number of medical inspectors, (say twelve.)

We have not thought it necessary to print Mr. Harvey's letter in full, because the points referred to by him have been completely discussed in the "Poor-law report of the Provincial Association," the concluding part of which was published in No. 45 of this Journal. We cannot recommend too strongly to the attention of our medical brethren this able and important document.

LITERARY INTELLIGENCE.

We are glad to perceive that Dr. Carpenter of Bristol is about to publish a Second Edition of his *Principles of General and Comparative Physiology*. We believe that a work on human physiology will shortly appear from the pen of the same deservedly popular writer.

TO CORRESPONDENTS.

THE Secretaries of the Provincial Medical and Surgical Association inform the members that the *PROVINCIAL JOURNAL* will in future be forwarded, free of expense, to all members of the Association whose subscriptions are not in arrear. To enable the secretaries to meet the expense of this arrangement, it is absolutely necessary that the subscriptions be punctually paid; the *JOURNAL* cannot be supplied to those members who neglect to forward their subscriptions.

The publisher of the *PROVINCIAL JOURNAL* begs to inform gentlemen desirous of completing their sets, that a new and improved series, containing Sir A. Cooper's papers, &c., commenced with the present volume, April 3, 1841. The back numbers from this period may be obtained through the medium of any bookseller or newsman in town or country.

Provincial Medical Schools. As we propose giving an account of the different provincial schools in an early number, we shall feel obliged for prospectuses, &c.

Letters and communications should be addressed to Dr. Hennis Green, 58, Margaret Street, Cavendish Square. Letters connected with the Provincial Association may be addressed to Dr. Streeten, Foregate Street, Worcester.

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COURSE

OF

LECTURES ON PHYSIOLOGY AND SURGERY,

DELIVERED AT ST. GEORGE'S HOSPITAL,

BY JOHN HUNTER, F.R.S.

(From the Manuscript of Dr. Thomas Shute.)

LECTURE XII.

GUN-SHOT WOUNDS.

THESE wounds derive their name from the manner in which they are made. They have generally been considered as a distinct kind of wound, requiring a particular treatment. They are made by the projection of an obtuse body, which produces death in the parts which it strikes, and that prevents bleeding. The consequences arising from these wounds are various. Frequently abscesses and fistula from the lodgment of extraneous substances; consumption from wounds of the lungs; stone from something being lodged in the bladder, &c. The wounds vary according to different circumstances. If they are made by cannon-ball or pieces of shell, they are generally very similar, these being so large that they quite destroy parts. Musket shots produce great varieties, there being scarcely any two wounds made by them exactly similar. The wound will differ according to the degree of velocity with which the ball entered. If the velocity is small, the contusion will be less, and the direction of the ball will be uncertain, because slight obstructions will turn it out of its direction. The sloughing will also be less.

When the velocity is great with which the wound is made, the parts will appear as if a piece was taken clean out, the hæmorrhage is often great, and the wound in a straight line. The great velocity with which the ball is sometimes projected, makes up for its obtuseness, and causes the wound to be very similar to one made with a cutting instrument, therefore in such cases the hæmorrhage is frequently very considerable, and the wound often appears less than the ball which made it. They are frequently complicated with fracture, exposure of large cavities, division of arteries, &c.

It has been the general practice to dilate these wounds indiscriminately. This practice, like every other where a general principle is strictly adhered to, must frequently be wrong; it was taken up from an idea that there was something to be extracted. Practitioners found that it was frequently impossible to extract the extraneous bodies, and that they always made their way out of themselves. This part of the practice was then altered, and they left off searching for substances, unless they were easily found; however, they still continued the practice of dilating.

No. 52,

Sometimes it is necessary to dilate; frequently it is not; from the variety in these wounds, no rule can be laid down, it must be left to the discretion of the surgeon. Sometimes by making an opening, the cure may be shortened. The skin is kept open by its own elasticity, and seldom heals while any extraneous substance remains. Bones are frequently fractured, and a part generally exfoliates where the ball has struck, whether it produces fracture or not.

Dilating these wounds is said to prevent tension and inflammation, but this is contrary to reason and practice, for it is impossible to cut without producing inflammation and tension, therefore these symptoms are increased. When it is necessary to cut, it will succeed best, if done after the first inflammation has entirely ceased; for by cutting while the first inflammation exists, we double it, which probably will be too much for the patient, and may kill him.

When limbs are amputated on the field of battle, or during the first inflammation, the patients generally die; they have a much better chance when the operation is performed some time after the accident. The few instances which there are of success, when the operation is performed immediately, may be attributed to the state of mind which the patient must be in at that time. Spent balls, when they enter, seem simply to divide parts. The parts struck by the ball are generally so contused as to slough away, which causes the wound, when the sloughs are removed, to be very large, and favourable to the discharge or extraction of extraneous bodies.

The inflammation of these wounds is not so great as those made by a cutting instrument, the surfaces not being so much exposed. The parts being deadened, act as the slough made by a caustic, preventing the wound from being exposed: therefore the inflammation which follows is the ulcerative, to separate the living from the dead parts; and this is not near so violent as the suppurative. Bleeding in these cases is generally very proper, but it should be done with great caution, for if the patient is very much reduced, he may not be able to support himself through the cure. Topical bleeding with leeches or the lancet is sometimes very beneficial. Nothing is more dangerous than reducing an animal too much, for when something is to be done, there will be an exertion of the living principle without strength, and that will kill. Bleeding may be used with greater freedom when the wound is on the head, chest, abdomen, or arm, than when in the leg, and with great caution if in a large joint; for, in the latter case, it requires great strength of constitution to perform the cure.

It is less dangerous to let a patient have more strength than is necessary to support him, than to reduce him too much. It is always necessary to have strength equal to the action which is to be performed. Bark is said to be particularly efficacious.

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cious in gun-shot wounds, and therefore is indiscriminately recommended, as if these wounds had something peculiar in them.

Bark acts as a balsamic and antispasmodic. It may be given in small doses during inflammation with great advantage, if small quantities of blood are taken away occasionally; the bark will not then increase the inflammation. This practice will be attended with particular advantage. The small bleedings will remove the fulness of the vessels, while the bark will support the strength of the patient, remove spasm, and restore the parts to their proper sensations.

In healing these wounds, they are to be considered as simple or compound. In simple wounds there is little to do but separate the sloughs. If a bone is fractured, then the treatment must be the same as in a compound fracture.

When there is any extraneous body in the wound or bone to exfoliate, it will be slow in healing, and perhaps become fistulous, from the irritation which is kept up on the inside. When the irritation ceases by the removal of the extraneous substance, then it will heal; sometimes, however, such an indolent habit is brought on by the wound remaining long in the same state, that it will not heal, when there is no cause to prevent it.

Compound wounds generally heal quick like those that are simple, but after a time they will come to a stand, and get fistulous. In these cases the skin will appear tucked in with a small round fungus, having in it one or more small fistulæ leading to the extraneous body. These are the appearances of a wound when any extraneous body is left behind, which is also shown by frequent ulcerations in the cicatrix. When an extraneous body is to be discharged, sponge tent is recommended to keep the wound open; but the use of this is needless, for when there is any extraneous body, it is very seldom that the wound will heal, and if it should heal, it will be the better; for when it is necessary to be discharged, an abscess will form, and that will make a much better external opening, than any which can be made by art. When exfoliation is at hand, a free exposure will be very useful, because that will hasten the separation of the parts by increasing the inflammation.

When it is necessary to cut for the removal of any part, it will be much better to do it after the first inflammation has entirely ceased; that is, to divide the inflammations, by which means the constitution will suffer much less. It is the same when we find it necessary to amputate; the patient will have a much better chance of recovering, if the operation is performed after the inflammation arising from the accident has ceased. If the operation is performed immediately after the accident, then the first inflammation will be avoided, and we shall only have the inflammation arising from the operation. Notwithstanding it will be better to let the first inflammation take its course, for there is a certain reduction of constitution necessary, to accommodate it to the loss of a limb, without which patients rarely recover.

If then the accident is such that we think the patient can survive the first inflammation, it will be better to defer operating. When the constitution is in full health, it is in the very worst state for performing any capital operation. When balls are at rest they do little harm, therefore the prac-

tice of searching after them has long been left off; they frequently subject the patients to little inconvenience, and sometimes are never found during life.

The passage of balls is usually straight in proportion to their velocity. A spent ball will take such various turns, that it is impossible to tell what course it has taken. A ball has sometimes struck against one of the ribs, and has passed above half round the chest, under the integuments, before it has stopped.

It has likewise happened that a ball has penetrated the integuments on one side the tibia, and has passed under the skin to the other side, without coming through.

When there is a long wound under the skin, a wound made in the middle will sometimes be attended with great advantage, by shortening the length of the canal, and prevent abscesses from forming in different parts.

The course of the ball may frequently be traced by a red line along the skin. This line is frequently to be seen when the ball passes deep; what it is I do not know; it does not appear to be inflammation, and the line of extravasation is of a darker red colour. When a wound is covered only by thin skin, it is generally best to dilate it, for the inside of the skin seldom granulates well.

When a ball has lodged itself under the integuments, it is best to leave it until the first inflammation is over, for, by extracting it before, we have two inflammations, and the last generally greater than the first. If the second opening is the depending orifice, it generally heals sooner than the first, as in hydrocele; because the extravasated fluids falling into the lower cells, close the orifice by distension. The wound is generally longest in healing where the ball enters, because at that part the contusion and necessary loss of substance are greatest: the ball being generally a good deal spent before it passes out there, only simply divides parts.

Constitutional treatment.

Bleeding is not more necessary in this wound than in others. Sometimes there is no occasion for it at all, where the wound is not complicated. The red line which frequently marks out the course of the ball, is not inflammation, for where there is inflammation there is always some tension, and in this case there is none: neither is it owing to any extravasation, for when the blood is extravasated, it loses its florid colour and appears black. When it is necessary to examine the state of a wound, it is best to use the finger, for a probe will give little information; it can only inform us that a bone is bare.

By medicines, the actions of parts may be strengthened; but I do not think that it is possible for any medicines to add in the least to the power of life; when it is diminished, it can only be restored by new blood.

Bleeding is often very dangerous in these cases, because it sometimes reduces the constitution so much, that it has not strength to manage the disease: topical bleeding is therefore to be preferred.

Local inflammation will not bear bleeding as a fever. In a fever, it is hardly possible to kill a patient by bleeding him, but where there is considerable local inflammation, an injudicious bleed-

ing will often soon kill. A second bleeding often destroys a patient very quickly.

In healing wounds which are near joints, particular attention should be paid to the motions of the parts; for if they are not frequently moved while healing, they will acquire such rigidity and stiffness as frequently impede motion. This ought more especially to be attended to, if there is much loss of substance, for the rigidity will be proportionably great. Parts while forming will, if frequently moved, adapt themselves to that motion; therefore, the lungs are frequently united to the pleura by long threads; these probably form while in a ductile state.

Penetrating wounds.

These wounds may be divided into two kinds; such as simply enter the cavities of the thorax or abdomen, and those by which some part contained in the cavity is injured. Penetrating wounds of the abdomen, attended with injury of its different contents, have been very well explained by authors, therefore nothing will be said of them here.

Wounds of the lungs, merely as such, I do not think mortal; for I have known many instances where balls have passed through the lungs, and all the patients have recovered. In these cases there is little hæmorrhage, adhesion takes place between the lungs and pleura surrounding the wound, excluding the general cavity from exposure, suppuration follows, and they heal up with little inconvenience to the patient. Gun-shot wounds of the lungs do much better than those made by cutting instruments; this probably arises from the former being attended with little hæmorrhage, and from the wounds remaining open for some time, which prevents any ill consequences arising from extravasated fluids being retained in the chest.

If the lungs are wounded with a cutting instrument, there is greater danger than in the former case; for the hæmorrhage which is always considerable in such wounds, will extravasate into the general cavity, if there are no adhesions. The external opening generally heals up very soon, and the extravasated blood, if in a small quantity, will be absorbed, but if the quantity should be very large, it frequently brings on great mischief, from compression of the lungs. The symptoms are great lowness, with a load in the breast, difficulty in breathing, a quick and hard pulse. In such a case, the sooner the operation for empyema is performed the better, for if the blood coagulates, it will be difficult to remove it.

Captain Muller received a wound with a small sword under the left breast; after the accident he vomited (if it may be so called) a large quantity of blood, but this entirely ceased after the second day; adhesions had probably taken place in the cells of the lungs surrounding the wound, which prevented his spitting of blood; however, the large opening of the lungs into the thorax still continued to throw blood into the cavity, which might be from the thorax, acting as the valve of a pump every time he inspired. He frequently sweated very profusely, therefore he had no hardness of his pulse or dryness of the skin. Wounds of vital parts are generally attended with a dry skin.

He could not lie on the sound side, that suffocating him; nor on the diseased side, from the pain which it gave him; therefore he could only

lie on his back. He had opium given him in small quantities which relieved him, expectorants were joined with it. It was recommended to be given in larger quantities by me, but that was overruled by the physicians, who feared that it would lock up the chest too much; the operation was strongly urged, but that was also overruled. The difficulty of breathing gradually increased for about five weeks, at the end of which time he died of a sudden kind of suffocation. On opening the body, the left side of the chest was found filled with fluid blood, adhering to the sides of the pleura; it appeared coagulated, but this was probably lymph thrown forth from the pleura, and coagulating immediately from its extravasation. The lungs were very considerably collapsed, quite sound and remarkably firm, having the wound in them unhealed. It is found by experience, that it is much the best, in general, not to amputate on the field of battle; however, there may be some instances where it may be right. If, for instance, there is copious hæmorrhage from a shattered limb, it may be better to amputate it at once, than go in search of the vessel by repeated incisions, for by that means a larger cut surface may be made than by amputation. Amputation produces a quicker and more violent inflammation than more extensive mischief done by a gun-shot would occasion.

Mr. Adair has observed to me, that those patients who had their limbs amputated on the field of battle very rarely recovered, whereas those who were left until the inflammation had entirely ceased frequently did well.

LECTURE

ON THE

CONNEXION BETWEEN LIFE AND MATTER

IN

THE SERIES OF ORGANIZED BEINGS.*

By M. DUMAS,

PROFESSOR OF CHEMISTRY AT THE FACULTY OF MEDICINE, PARIS

(Concluded from p. 493.)

Hydrogen.—We have already seen how plants decompose carbonic acid, fix its carbon, and form with it the greater part of their substance; in the same way they decompose water, and fix the hydrogen for the purpose of forming certain products. This has been clearly shown by the experiments of M. Boussingault, on the vegetation of plants in closed vessels, and still more clearly by the formation of oils which are so frequently found in certain parts of plants, and are so rich in hydrogen; the latter must be derived from water, inasmuch as the plant receives no other substance containing hydrogen.

The substances thus formed from the hydrogen of water, minister to various functions in plants; they form those volatile oils which protect them from insects; those fatty substances which envelope seeds and furnish heat by combustion, when

* This highly interesting lecture formed the concluding discourse of M. Dumas to a series of lectures on organic chemistry. We are indebted to the *Journal des D tales* for it.

the seed begins to generate; those waxy materials clothing leaves and fruit, and rendering them impermeable to water. But these different functions are merely accessory, and hence the combinations of hydrogen are less frequently met with in the vegetable kingdom than those of carbon and water.

Nitrogen.—Every plant fixes a certain quantity of nitrogen, derived either from the atmosphere or the earth; it seems, however, probable that the nitrogen is fixed under the form of ammonia, or nitric acid. Mr. Boussingault has demonstrated, that some plants derive most of their nitrogen from air; while others, as wheat, draw it exclusively from manure; this is a most important distinction to farmers, for it shows them that they should commence the cultivation of land with those vegetables which derive their nitrogen from air; fatten with them animals, for the purpose of procuring manure, and then employ the latter for such vegetables as obtain their nitrogen from manures.

One of the most important problems in agriculture, then, is the means of obtaining nitrogen cheaply. About carbon, the farmer need not trouble himself; nature provides this abundantly in air and rain; but the azote of atmospheric air, and the ammoniacal salts contained in rain water, do not always suffice; most plants, the culture of which is a matter of importance to man, require an additional quantity of nitrogen, and this is supplied through the manure, by which their roots are surrounded. This, as we all know, is the chief expense attending cultivation, the main obstacle that the farmer has to overcome; but modern chemistry has arrived at a point which induces me to hope that the discovery of a chemical manure, containing abundance of nitrogen, is not far distant.

M. Schattenman, M. Boussingault, and M. Liebig, have directed attention to the influence of ammonia in manures containing nitrogen, and some recent experiments show that the nitric acid of the nitrates also merits particular attention.

But what is the use of this nitrogen, which seems to be so necessary to plants? M. Payen has partly explained this to us, by showing that all the organs of a plant are primarily formed by an azotic matter, analogous to fibrin, which subsequently unites with the cellular, woody, or amylaceous tissues; this matter is never destroyed, but always exists as the fundamental part of the plant, serving as the rudiment for its various organs; it likewise produces the caseum and the fluid albumen contained in the coagulable juices of plants. Fibrin, albumen, and caseum, then, exist in plants, and present a very curious analogy with lignum, starch, and dextrine; the fibrin, like the ligneous matter, is insoluble; the albumen coagulates under heat like starch; the caseum, like dextrine, is soluble; they are neutral substances, like the non-azotic analogous matters, and play as important a part in the vegetable kingdom as the latter do in the animal world. Besides, as the union of carbon with water, or one of its elements, produces these non-azotic substances, so the azotic neutral substances are produced by a combination of carbon and ammonia with the elements of water. Forty-eight atoms of carbon, six of ammonia, and seventeen of water, form, or are capable of forming, fibrin, albumen, and caseum. From what has been said, it is manifest that nitro-

gen is of great importance to vegetables, since it contributes to the formation of fibrin, or rudiment of their organs, and the production of albumen and caseum, with which so many plants abound.

Ashes.—The vegetable kingdom is traversed by an immense quantity of water; this evaporates from the surface of the leaves, and abandons the salts which it held in solution. The ashes of a plant are formed of these salts, which are evidently derived from the earth, and return to the same source after the death of the vegetable. The forms in which the salts are deposited, are extremely various; one of the most common is the pectinate of lime.

We have already seen how vegetables merely transmit fluids and gases in the absence of light; how they decompose matter, carbonic acid, and oxide of ammonia, under the influence of solar light; but at certain periods they act in quite a different manner. When a plant is about to fecundate or flower, to develop a bud, or germinate, instead of absorbing solar light, and decomposing carbonic acid, it consumes carbon and hydrogen; in other words, assumes the chief characteristic of animal life. And here we may notice a very remarkable circumstance; while the vegetable (wheat, barley, &c.) is germinating, it produces heat, carbonic acid and water, in considerable quantities; the starch of the grain is first converted into gum, then into sugar, and finally disappears under the form of carbonic acid; if a potato germinates, its starch is converted into dextrine, the dextrine into sugar, and the sugar into carbonic acid and heat; hence it would appear that plants produce heat through the medium of sugar.

Such being the case, it is impossible for us not to be struck by the following coincidences:—Fecundation is always accompanied by the development of heat; in the sugar-cane, the sugar which had collected in the stalk, disappears after the plant has flowered; the beet-root contains sugar up to the period of flowering, but subsequently not a trace of sugar can be found in the root; the same occurs in the carrot, parsnip, and turnip; thus, at certain seasons, and with the aid of certain organs, the plant assumes the functions of an animal; like it, consumes carbon and hydrogen, and generates heat. While so doing, however, it destroys the whole of the sugar which it had collected, for sugar, or starch converted into sugar, seem to be the materials from which vegetables derive the heat necessary for the accomplishment of many of their functions; and if we observe how instinctively animals, and even man, select those parts of vegetables in which sugar and starch are collected, it appears probable that these substances minister to the same end in the animal kingdom, that is to say, are consumed, and furnish the heat which is generated during respiration.

To sum up what we have said. In their ordinary state, vegetables obtain from the sun, heat, light, and chemical rays; from the air they receive carbon; from water, hydrogen; from ammonia, nitrogen; and from the earth various salts; with these different substances they fashion organized bodies which accumulate in their tissues: so far, then, the vegetable is a mere agent of production; but when, for certain purposes, it becomes an agent of consumption, it immediately fulfils the same functions as an animal. The latter, we

know, forms an apparatus for combustion, which is constantly discharging carbonic acid, and in which carbon is incessantly burning; this is the most constant character of animal life; it exists in all classes of animals, for it is immaterial whether the acid exhale from the lungs or skin.

Animals burn hydrogen as well as carbon; this is proved by the constant disappearance of oxygen during respiration; they are constantly exhaling nitrogen. I insist particularly on this latter point, because some writers assert that a certain quantity of azote is absorbed during respiration, but this is more than doubtful; the exhalation of nitrogen is the constant phenomenon; we derive none of this gas from atmospheric air, from which we merely abstract sufficient oxygen to form carbonic acid with carbon, and water with hydrogen. But in addition to the nitrogen which is exhaled, a certain quantity passes off by the urine. M. Lecanu has shown that each individual passes daily with the urine fifteen scruples of nitrogen; the latter is discharged under the form of ammonia: and here I cannot avoid directing your attention to the simple manner in which nature accomplishes her designs.

If we furnish the air with nitrogen, for the purpose of supplying vegetables with a necessary material, it follows that we should likewise furnish ammonia, a substance so necessary to the existence and development of most vegetables. The urinary secretion furnishes this quantity of ammonia, which is distributed to the air and earth. But the urinary organs of an animal would be destroyed by contact with ammonia or its carbonate; hence, nature excretes the substance under the form of urea.

Urea is a carbonate of ammonia, but the carbonate has lost sufficient oxygen and hydrogen to form two atoms of water; deprived of this water, carbonate of ammonia becomes urea, a neutral, inactive substance, which passes through the urinary apparatus without causing any mischief; when the urea has been discharged and exposed to air, it undergoes fermentation, recovers the two atoms of water, and is reconverted into carbonate of ammonia—a volatile substance, and therefore ascending into the air—a soluble one, and therefore taken up by rain-water—distributed from earth to air, and from air to earth, for the purposes of vegetable life. But one point more is necessary to complete this sketch. Urine contains a trace of albuminous or mucous matter, which, when exposed to air, becomes an agent of fermentation, and converts the urea into carbonate of ammonia. Hence, from the lungs and skin we furnish carbonic acid, water, and nitrogen; with the urine, ammonia; these are the constant and necessary exhalations of an animal, and these are precisely the substances which vegetables require.

If we now ask whence come the carbon, hydrogen, and ammonia, which animals supply to plants, the answer is, from their food, and this leads us to consider digestion in a much simpler manner than has hitherto been done. If we admit that animals do not produce any organic matter, but assimilate it, or destroy it by combustion, the mysteries of digestion disappear, and are reduced to the simple function of absorption, during which, soluble matter passes into the blood, insoluble matter to the chyle.

Besides, the object of digestion is evidently to

furnish the blood with materials necessary for the production of the twelve or fifteen scruples of carbon, (or their equivalent in hydrogen,) which we burn every hour, and the scruple of ammonia hourly discharged by the lungs, skin, and urine.

Hence, amylaceous substances are converted into gum and sugar; saccharine substances are absorbed; fatty matters are subdivided, and carried by the vessels to certain depôts of combustible material. Neutral azote materials, as fibrin, albumen, and caseum, pass into the chyle.

From this it appears that an animal receives and assimilates, nearly unchanged, neutral azote substances, fatty matter, and saccharine, or amylaceous substances, all of which he finds ready formed in the animals or plants that constitute his nutriment; he assimilates or destroys organic matter which has already been formed, but he creates none. Digestion, then, introduces ready-made organic matter: the animal assimilates that portion which contains azote and burns the rest.

But if animals are unable to produce any organic matter, do they possess the curious property of generating heat without a waste of matter? You have seen the contrary, when the experiments of MM. Dulong and Despretz were under discussion. I am firmly convinced that animal heat is exclusively derived from the respiration; that it is proportionate to the carbon and hydrogen consumed; that the analogy between an animal and a steam-engine is closer than we could have thought possible; in both we find combustion, heat, and motion, three phenomena dependent on, and proportionate to, each other.

Thus you see that in this point of view the animal machine becomes simple and easily understood; it is a thing intermediate between the vegetable kingdom and air, drawing its entire support from the first, and rendering all its excretions to the second.

Need I recall to your memories the theory of respiration which we have adopted? Venous blood dissolves oxygen, and gives out carbonic acid; it is arterialized without furnishing a trace of heat; but under the influence of this oxygen the soluble materials of the blood are converted, as MM. Mitscherlich and Fremy have shown, into lactic acid; the latter is converted into lactate of soda; the latter, by a process of combustion, into carbonate of soda, and this last is, in its turn, decomposed by a new portion of lactic acid.

The true phenomena of respiration consist in this slow but continued process of combustion. The blood is oxidized in the lungs, but animal heat is produced in all the capillaries of the body, where the combustion of carbon is constantly going on. One more remark on this subject, and I have done.

To ascend to the summit of Mont Blanc, the traveller employs two days; during this time he consumes 300 scruples of carbon; were a steam-coach employed to carry him up, it would require from 1,000 to 1,200 scruples to effect the same object. Hence, considered as a machine which derives its force from the carbon which it burns, man is three or four times more perfect than our best steam-engines. Our engineers, then, have still much to do, before they can equal the living model; but the numbers which we have just mentioned indicate an identity of principle be-

tween both machines, especially when we reflect on the unavoidable loss of power in steam-engines, and the wonderful manner in which such loss is avoided in the human machine.

Let us now conclude by a summary of what we have said.

From the aboriginal atmosphere of this globe three grand divisions have been formed; the present atmosphere, the vegetable kingdom, and animals.

Between these three masses a constant interchange of matter goes on. Matter descends from the air to vegetables; from the vegetable kingdom it passes to animals; and from the latter it ascends to the air, whence it originally came.

Green plants constitute the grand laboratory of organic chemistry; with carbon, hydrogen, nitrogen, water, and oxide of ammonium, they construct the most complex and varied organic substances.

From the rays of the sun they receive the chemical force necessary for this production of organic matter.

Animals assimilate or absorb the organic matters which vegetables produce; they alter them gradually, they destroy them. Some new organic substances may be formed in the organs of animals, but in all cases they are more simple, more near the elementary state, than those which they have received. They gradually decompose the organic substances furnished by the vegetable kingdom, and resolve them into carbonic acid, water, nitrogen, and ammonia, that they may be in a condition to return to the air.

In burning or consuming these organic substances, animals produce a quantity of heat, which radiates through all space, and replaces that absorbed by vegetables.

Thus, whatever the air yields to plants, plants yield up to animals, and animals, finally, restore to air—an eternal circle in which life revolves, but where matter merely changes place.

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MEDICAL & SURGICAL JOURNAL.

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WE were induced last week to call attention to the manifesto professedly put forth by the deputation from the British Medical Association, and chiefly with the view of pointing out the singular misconceptions into which the deputation had been led by the reserve, we suppose we must designate it, maintained by one of the members of that body towards his colleagues. We should not have thought it necessary again to allude to this document, but for the reason that it is addressed to a highly respectable and intelligent association, and that it contains some other misconceptions on the part of the writers or writer, by which it is desir-

able that the members of the body referred to should not be misled. The deputation, somewhat after the manner in which a distinguished statesman of the early part of the seventeenth century memorializes himself on the events of his own life, profess to give an account of their proceedings at the York Meeting, and instead of reading, your excellency thought thus, and your excellency acted thus, we are here instructed that Dr. Hall doubted the policy of proceeding to one line of action, and that Dr. Webster ridiculed the idea of waiting for another. One remarkable difference, however, we perceive in the autodoxology of Drs. Hall and Webster, and the autobiography of the Duke de Sully. The statesman communicates, to himself, information with which he was already well acquainted; the deputation report, professedly for the instruction of others, proceedings with the tenor and the import of which their memories would seem to be but imperfectly charged.

With the manner in which the report is drawn up, however, we should not have interfered, had it not been intimately connected with the insinuation of certain inferences, which are far from being authorized by what actually took place at the meeting. One specimen we brought under the notice of our readers last week; we now reproduce, from Dr. Webster's own journal, the account given of Dr. Webster's individual proceedings. "Dr. Webster did not oppose the adoption of the memorial to government, though he expected no good to result from it: it was so much time wasted to apply to the present ministry; and from a correspondence he had had with Sir Robert Peel, he very much doubted whether he could or would entertain the question during the coming session; if so, he feared that no measure would be obtained which could be satisfactory even to his friend Dr. Barlow, and his colleagues of that association. After an interview which the conference had with the three corporations, he ridiculed the idea of *waiting for their reforms*, or expecting anything from their advent. He alluded at some length to the official reply of Sir H. Halford from the College of Physicians, and to the opinions expressed by Mr. Guthrie and Mr. White, that the College of Surgeons was perfectly immaculate in its constitution and actions; that it was a pure college of surgery, and that it had nothing to do with medicine, midwifery, or pharmacy. He then noticed the changes contemplated by the corporations, who had evidently united their strength to preserve and extend their exclusive privileges, and thought that, after the late resolutions of the Worcester council in favour of these bodies, (which, however, had not been responded to,) some declaration of the reform principles of the asso-

ciation ought to be made. He would submit to the meeting a few simple and plain propositions, which might be added to the memorial to government, as the basis of the measure which they sought for; or, if the meeting preferred it, they might be adopted as their reform creed. Dr. Webster then dwelt on the great importance of at once obtaining a plan of representative government for the profession; he had always had the misfortune to differ from his friend, Dr. Barlow, as to the order in which the two great divisions of medical reform should be sought for. Dr. B. thought, if *uniform qualifications* were obtained, good government and every other blessing must necessarily follow; while he (Dr. Webster) contended that uniform qualifications, efficient examinations, and a high state of respectability, would inevitably result from *incorporation*, and a council representing and carrying out the wishes of the great body. As his colleague, Dr. Hall, had dwelt with so much effect on this point, and had so well expressed his own sentiments on the subject, he would at once read his propositions, leaving them to the meeting to be disposed of as they should think fit.

"That this association will promote any measure of reform founded on the principles of—

"1. Qualification—that is, competent acquirements, both preliminary and professional, to be tested by efficient examinations, of all who shall enter the profession.

"2. Registration of all legally-qualified medical practitioners.

"3. Incorporation of the whole profession (legally qualified) into one general faculty of physic, with equality of rights and privileges.

"4. Representation and government, by a council in each kingdom, to be elected by the votes of the commonalty or members.

"5. Regulation of the practice of pharmacy."

The dictation which marks the attempt on the part of Dr. Webster, as a *member of the deputation*, to lay down a reform creed for the meeting, is too glaring to escape observation. As a *member of the association*, he had of course the right to propose anything on the subject which he might deem reasonable, but as a *member of the deputation*, in which character he was addressing the chair, such a proceeding was highly objectionable. It is correctly stated by Dr. Webster, that the difference between Dr. Barlow, the chairman of the committee, from which emanated the report and memorial adopted by the association, and himself, was chiefly as to the order in which the two great divisions of medical reform should be sought for. Dr. Barlow, we are told, expects every desirable result, or, as Dr. Webster has it, "good go-

vernment, and every other blessing," ultimately to follow from adequate qualification. Dr. Webster contends, on the other hand, that uniform qualification, efficient examination, &c., are to follow from incorporation. Now, judging from what we have hitherto seen of all corporations whatsoever, whether ancient and worn out, or modernized, and, as it is said, reformed, we are not inclined to expect much from this panacea. Under any circumstances, we should not anticipate material practical benefit to result from the incorporation of the medical profession, in its present state, into one heterogeneous body, and least of all from the incorporation of persons not duly or efficiently qualified. Gentlemen in power and office, even though belonging to the medical profession, are apt to think and act differently from the same gentlemen out of power, and who have no official duties to occupy their attention. We are informed by those who profess to know much of the secret proceedings of the Fellows of the College of Physicians, that the system of exclusion is chiefly upheld, and the carrying out of salutary reforms chiefly opposed, by the very persons who, before their admission to the fellowship, most strenuously clamoured for the introduction of the one and the abolition of the other. The licentiate fellows, as they have been termed, are said, with what truth we profess not to know, to be the main supporters of existing abuses; and it is even surmised, that Dr. Marshall Hall himself will ultimately follow the course of those who have preceded him into the penetralia of the college. We do not, therefore, anticipate much from this specific for every evil; and whether Dr. Webster or Sir Henry Hallford, the coroner for Middlesex or Sir Benjamin Brodie, be at the head of the present College of Surgeons, or preside over the councils of a new faculty, we believe that the same difficulties will be found in adjusting those practical reforms, without which, incorporation on the most equitable and open principles is merely the empty shell from which the kernel has been abstracted. Now, we think that Dr. Barlow's proposition to improve the qualification as the first and preliminary step, is a *bond fide* movement in advance. Abstractedly we are not disposed to object to the five propositions submitted by Dr. Webster, while it may be remarked, that the very order in which he has placed them is their natural order of sequence, and that which we should be disposed to advocate in the endeavour to carry them out. We must, however, protest against the inference subsequently attempted to be insinuated by Dr. Webster, who, as we are told, "after some further discussion, withdrew his motion, on the understanding that the propositions were recognised by the associa-

tion." We are convinced, that neither did the association nor the meeting recognize any such propositions. It is these attempts at controlling and giving a forced interpretation to the proceedings of the association, that have compelled us to take notice of the tone and manner in which the report of the deputation is drawn up. Though we may admit that, in the abstract, we are not disposed to object to the five propositions, it by no means follows that we recognize them, or that we in any way approve of the specific form in which each proposition is drawn out.

Incorporation into one general faculty, for instance, in the present state of these questions; we look upon are purely speculative, and whether it may ultimately be deemed advantageous to adopt this one faculty scheme, the working of which no one can estimate, or to continue to preserve those divisions which the requirements of the public have established, we feel convinced that neither was the York meeting, nor the association at large, disposed to afford the slightest support to the views upon this subject advanced by Dr. Webster. As to the unanimity of the meeting being seriously disturbed by any opposition offered to the reception of the report, Dr. Webster must have been pretty well assured that there was little chance of this. Had he thought that he could have gained anything by pressing the point, that he could have taken anything by his motion, we believe him to be too experienced a tactician to have given up his position without a struggle. We are confirmed in this opinion by the evident signs of discomfiture exhibited by his chief ally, whose reminiscences would seem to be as little agreeable to his own mind, as his mode of expressing them is creditable to his reputation. The simple fact is, that the meeting could not yield its assent to the speculative reforms involved in some of Dr. Webster's propositions, and was determined to form a judgment from the report of the committee of the association, and to abide by the recommendations contained in that report. Dr. Webster and his friends were fully aware that there was not the slightest prospect of altering this decision, and therefore withdrew their proposition, endeavouring now to represent their defeat in the light which they deem most advantageous.

REVIEW.

A Treatise on Inflammation. By JAMES MACARTNEY, M.D., F.R.S. &c. London, Longman and Co., pp. 214.

THE name of the author whose work we are

about to notice, has long held a prominent position amongst those distinguished men who have laboured so zealously, during the last half century, to elevate medicine from a chaotic mystery to the rank of a rational and demonstrable science. It is painful to reflect how few of that gifted body are now remaining, and how difficult it has been found to replace those that have passed from amongst us. The names of Hunter, of Rasori, of Bailey, of Dupuytren, of Abernethy, and of Sir Astley Cooper, are ever associated in our minds with that period when medical inquiry first assumed a philosophical cast; when the idle, dreamy speculations which formerly prevailed, and which so materially retarded the advancement of medicine as a science, gave way before the new and more rational system of experimental inquiry, of close observation, of the collection of facts, and of generalizations therefrom.

Dr. Macartney's name will find an appropriate bidding place amongst those of the illustrious individuals above mentioned. A long public life of the most persevering industry, of unwearied zeal, and of the strictest probity in the pursuit and elucidation of physiological truths, has established his title to that high place, and has procured for everything that emanates from his pen, the attention and respect of the first of the learned societies of Europe. Indeed, when we look around us, we can scarcely find another of the class to which he belongs, either in this country or abroad, now remaining. They have, one by one, passed away, and the author of the *Treatise on Inflammation* may not inappropriately be considered as the *Ultimus Romanorum* of that illustrious school.

On retiring into private life, Dr. Macartney bequeathed to the profession the volume now under consideration, which contains the essence of those peculiar views and doctrines he was in the habit of teaching, during a long series of years, in the University of Dublin. We regret that this event did not take place earlier. It was doing an injustice to himself, as well as to the public, to have withheld his work so long, especially as we understand it was written for years before it saw the light. Had Dr. Macartney published this volume long before the time he did so, his doctrines would not have been so partially, and in many instances, so erroneously expounded as they were by third parties, through the press, as well as at medical societies; and it would have been the most effectual prophylaxis against the petty larcenies and piratical propensities of certain individuals who hold a respectable standing in some of our universities, and who have contrived to rear a goodly superstructure on the fundamental precepts of the veteran professor of Trinity College.

which they have pawned upon the world as their own.

We shall now proceed to lay before the reader a brief analysis of this highly original and interesting volume. Dr. Macartney's treatise is divided into thirteen chapters, the first four of which embrace a consideration of the history, phenomena, and consequences of inflammation. The three following are occupied with an exposition of the different modes of reparation. Then follows a dissertation on the different causes and species of inflammation, in five separate chapters; to these succeeds one on the differences between congestion and inflammation. The treatise concludes with an elaborate account of the various remedies for inflammation, in which the author's peculiar doctrines are brought fully into play.

In the introductory chapter, on the history of inflammation, our author does not confine himself to the human being, but commences at the lowest scale of organized existence, and gives a concise physiological view of that morbid condition in the lower animals, and in man. The various classes of the animal kingdom, from the polypi to birds, are not susceptible of inflammation, properly so called; and here we find the reparative process most perfectly developed. The class of *birds* is the first, as we ascend in the scale of creation, in which genuine inflammation is found to exist as a consequence of external mechanic injury. *Quadrupeds* are subject to inflammation, both from external injury and internal disorders, but, generally speaking, show little constitutional sympathy with local disease. "A dog or a horse will continue to eat, although suffering from an accident that may prove fatal." Man, above all other organized beings, is disposed to inflammation, sometimes in consequence of the slightest external irritation, and of various internal disorders.

"The history given," says Dr. Macartney, "of the effect of injury in the different classes of animals, proves that the powers of reparation and of reproduction are in proportion to the indisposition or incapacity for inflammation, and lead necessarily to the induction, that inflammation is so far from being necessary to the reparation of parts, that in proportion as it exists, the latter is impeded, retarded, or prevented, and that when inflammation does not exist, the reparative power is equivalent to the original tendency to produce and maintain organic form and texture; that it then becomes a natural function, like the growth of the individual or the reproduction of the species."

This, the fundamental doctrine of Dr. Macartney, is, as all our readers are aware, directly opposed to the almost universally received opinions of the present day. Sir Astley Cooper's views on this point,

which are unequivocally expressed in his *Lectures on Surgery*, edited by Mr. Tyrrell, may be taken as expressing the general opinion in this country on the question. Sir Astley observes:—"Inflammation is a restorative process; no wound can be repaired without it," &c.; and very recently we have the same ideas more strongly expressed by Dr. Marshall Hall, in his *Lectures on the Practice of Physic*, published in a medical journal. Dr. Hall says: "Without inflammation the art of surgery could not exist"—an axiom which we do not hesitate to pronounce to be as fallacious as it is sweeping. This doctrine has been generally attributed to John Hunter, but Dr. Macartney cites several passages from the works of that illustrious surgeon, which show that he was fully acquainted with the possibility of wounds healing without inflammation, although he still considered it a sanatory process.

The next important link in the chain of Dr. Macartney's peculiar views is, that the effusion of lymph is not a necessary consequence of inflammation, neither is it necessary for the reparation of parts. Here, again, our author is at direct issue with the generally received opinions of the day. The shedding of lymph, as every tyro in medicine knows, has been hitherto considered as the result of inflammation, and as one of the most important means towards the reunion of divided surfaces. The author of the treatise before us, however, clearly demonstrates that the effusion of lymph, although frequently co-existing with inflammation, is not of necessity a result of that morbid condition, and, moreover, that reparation of injured parts may be effected without a single one of the phenomena of inflammation being present.

It results, then, from Dr. Macartney's arguments, that the effusion of lymph in injured parts takes place prior to, and perfectly independent of, the state called inflammation; and also, that inflammation, instead of being a sanatory process, as it is generally believed to be, is decidedly injurious to the reparation of the parts affected. These two fundamental doctrines, which are amply illustrated in the work before us, and to our minds satisfactorily proved, form the basis of Dr. Macartney's general views and precepts as regards the nature and treatment of inflammation. It has been argued by some shallow controversialists against these doctrines, that a certain degree of inflammation, just sufficient for all useful purposes and no more, may exist without its usual characteristics being cognisable to the senses, and in such instances it might be erroneously supposed that the process of inflammation did not exist. What captious disputants, what exquisite sophistry have we here! Indeed, a professor of considerable note in one of the London schools of medicine very recently

urged similar objections to a case which we related, of deep wound of the foot healed in a few hours without inflammation, and which was treated simply with water-dressing. "What proof," asked the professor, "have you that inflammation was not present?" We answered, that none of the usual signs of that diseased condition were apparent; there were neither pain, heat, redness, nor swelling. "Yes," continued he, "although these symptoms were not apparent, what evidence have you to show that one or more of them were not present in a *latent* state?"

Dr. Macartney despatches this species of sophistry in the following terms:—"If there be any degree of inflammation, in which there are no heat, redness, tumor, or pain, or disturbed vascular action, it ought to be clearly distinguished from that kind which is attended with these phenomena; and then we should have two sorts of inflammation, the one with phenomena, the other without; which, if we chose to disregard the logical contradiction involved in such an admission, would amount to the same practical result as if on one occasion inflammation did exist, and on others it did not."

We now arrive at that part of the work which treats of the different modes of healing, and here also the author differs from the generally received notions on that important subject. "Reunion and reorganization," says Dr. M., "are effected in *four* different ways, which may be designated in the following manner:—*First*, immediate union without any intervening substance, such as blood or lymph. *Second*, the union by the medium of coagulable lymph or a clot of blood. *Third*, reorganization without any medium of lymph or granulations, the cavity of the wound becoming obliterated by a natural process of growth. *Fourth*, the reparation by means of a new, vascular, and organized substance, called granulations." Space will not, unfortunately, admit of our dwelling upon each of these modes of reparation; we must, however, distinctly claim for Dr. Macartney the merit of being the first to describe the *third* mode of union, or the "modelling process," as he calls it, notwithstanding the vague insinuation of another reviewer, that it was "not previously unknown to surgeons." The original views of our author on the reparation in necrosis, or diseased bone, are well worthy the attention of the reader, especially as the conclusions he has arrived at, on this long disputed subject, are illustrated and supported by a series of preparations now placed in the museum of the University of Cambridge. The local and constitutional causes of inflammation being discussed in successive chapters, the author proceeds to describe the

proximate cause, which he believes to be "an organic sense in the injured part." As this view involves questions of deep consideration, we shall allow the author to explain, in his own language, the process of reasoning which enabled him to arrive at this conclusion.

"When an injury has been committed on any part of the body, the natural sensibility of that part is roused to a consciousness of what has been suffered, either instantaneously, or in a very short time. This local feeling or impression, or whatever it may be called, is distinct from the sensible pain of a wound, and may exist in the greatest degree where little or perhaps no pain is felt. At other times it may be coincident with common pain, although, when perceived, it is distinguishable from it. In general the organic consciousness is distinct from that of the individual, unless the sense of injury be communicated to the whole nervous system, and then the person feels a degree of agitation and alarm which he cannot understand or account for. On some occasions, we observe the immediate effect of the impression shown by the vessels of the part, as when the circular blush around the puncture at the moment of vaccination gives intimation of the sensibility of the part, to the admission of an animal poison; and sometimes the individual is conscious of a peculiarity of sensation from the contact of other morbid poisons, when the organization has not been injured, but has merely received the impression.

"As we have sufficient grounds for assuming that an organic sense of injury, or danger, modified according to the causes which produce it, necessarily precedes inflammation, it is reasonable to conclude, that this is the *proximate* or *essential* cause of inflammation; and the opinion seems to be confirmed by the history already given of the constitutional and local causes; as also by the contemplation of the kind of sensibility and vital properties which belong to the tonic tissues, of which the arterial is one."

In the chapter on the differences between inflammation and congestion, the author regards the latter state as belonging to the venous system. He says, "Congestion, properly speaking, belongs to the venous system: it is caused by any mechanic impediment to the promotion of blood in the veins," &c. He also alludes to the fluid state of the blood in cases of congestion, and describes a preparation of his own, "in which the liquid extravasated blood, from obstruction in the circulation of the lungs, had been taken up by the absorbents of those organs, proving that the infiltration through the coats of the veins is not the consequence of death, however it may be facilitated by that event." "The most remarkable circumstance with respect to congestion," observes Dr. M. "is, that arteries found in a congested part are smaller than their natural size." With the view of seeing what would be the instantaneous effect of arresting the venous circulation, Dr. Macartney exposed the mesentery in a young-

rabbit, and having tied the trunk of several mesenteric veins, their arteries contracted immediately, in the most palpable manner, and to a very small size: "as if taught," to use the author's words, "by their organic instinct, that blood should not be permitted to go where it must immediately return."

We regret that we cannot dwell longer on this interesting chapter. It concludes the theoretical portion of the work; and, recommending it to the attentive consideration of the reader, we shall now proceed to the important chapter which embraces a consideration of that peculiar plan of *treatment* in inflammation, which Dr. Macartney first introduced to the notice of the profession in these countries, upwards of five-and-twenty years ago. The bases of the treatment recommended by the author, for mitigating or subduing inflammation consequent upon external injury, may briefly be said to consist in moisture and temperature, regulated according to circumstances. As, for instance, in those cases of severe injury in which the whole system receives a shock, and where there is a high degree of pain, the application of steam, at a temperature regulated by the feelings of the patient, will be found the most effectual means of relieving the system from the effects of the shock, and also in soothing the feelings of the sufferer. To use the author's words, this remedy "removes all pain and consciousness of injury in a very short time." Whenever the painful sensation and sense of injury should have subsided, the temperature of the steam should be lowered, and then continued. Dr. Macartney believes that, in cases of active inflammation, no other local application will be found so efficacious as this. The author has invented a "steam apparatus," by which heat and moisture can be directed and applied to any part of the body. This contrivance has the merit of being simple, useful, and economical, and we beg to refer the reader to the work itself for a description of it. It may be seen at Weiss's, Surgical Instrument Maker, Strand.

The application of cold water, as a remedial measure, to which Dr. M. has given the name of "*water-dressing*," next engages our attention. The chief object of this mode of treatment is to produce a moderate degree of temperature, which allays, but does not destroy, sensibility and vascular action, and at the same time promotes the reparative process. "The tendency of *water-dressing*," observes the author, "if properly conducted, is to induce the cure of wounds and ulcers, not requiring excitement, by the modelling process, as already described." Too great a degree of cold, however, as from the application of ice, would be injurious

in such cases; owing to its sedative properties, it would suspend the process of reparation altogether. The "*water-dressing*" consists of lint, water, and oiled silk; and one of the great advantages of this over the ordinary "*dressings*" is its extreme simplicity; so much so, that with common care and attention, the public can apply the remedy as well as the profession. The following are the directions given by Dr. Macartney for the application of *water-dressing* :—

"The substance that I have generally made the immediate object of application, is the finest and softest lint; and for the covering material, either oiled silk, or a thin plate of Indian rubber. Simple as this mode of dressing may appear, it requires to be managed with care, and attention to many circumstances, which would appear trivial, to persons unacquainted with the nature of the remedy. Two, three, or four layers of the lint should be first folded together, according to the size of the part to be covered, taking care also that the soft side of the lint is the outer one. In wetting the lint the first time, it is necessary to either float it in the water, before folding it, or, if it be first folded, it should be pressed between the fingers, to urge the fluid into the interstices of the lint, which receive fluid with difficulty, until all the air they contain be expelled. The lint, when applied, should just contain as much water as not to drop. The oiled silk, or Indian rubber, should project so much beyond the margin of the lint as may prevent evaporation, which will vary according to the shape of the part on which the dressing is laid, and the thickness of the folded lint.

"It is of great importance to use the wet lint without any bandage that can give to the part affected the least feeling of constraint. The figure of the parts sometimes renders this difficult to effect, without stitching the silk into a particular shape, which is much better than using any strict bandage.

"The periods for changing the lint must vary according to the nature of the case; but as a general rule, three times during the day, and twice during the night (if convenient) will be sufficient. In cases where the inflammation is moderate, and the skin unbroken, the dressing will only require to be changed every twelve hours. At each time that the dressing is renewed, the lint and oiled silk should be carefully washed, and when it is applied to ulcers, fresh lint should replace that taken off, the utmost cleanliness being of the first importance.

"French oiled silk is very much superior to the English; it does not adhere to the skin, and therefore does not fret it."

Much error prevails as to whom the merit belongs of having first introduced this simple but efficacious remedy to the notice of the profession in these countries. Thus, for instance, we find in a work published, but a few months ago—Billing's *Principles of Medicine*, fourth edition—the following curious statement: "The German *water-dressing* has much the advantage over poultice; the piece of lint dressed in water is lighter than the

poultice, the oiled silk over all retains the moisture," &c. Can it be possible that Dr. Billing was not aware the Germans had no more claim to this said water-dressing than his great-grandfather? He must surely have been reading "Faust," or the "*Fables of Grimm*," when he was about to pen that sentence. We shall now let him hear what Dr. Macartney, to whom the merit really attaches, says with regard to the propriety of substituting water-dressing for poultice. "Some persons," says Dr. M., "now profess to use water-dressing as a substitute for poultice, by which they show their ignorance of the nature and operation of the remedy," &c.

Mr. Syme of Edinburgh is another claimant on this score; he inculcates the doctrines of Macartney in his lectures, and in his works on surgery, as emanating from himself; and we are not a little surprised to find the following loose statement in defence of his conduct, in the pages of the *British and Foreign Medical Review*. "It has been insinuated," says that journal, "that Mr. Syme's *Principles of Surgery* contains the major part of Dr. Macartney's peculiar ideas upon inflammation, taken without acknowledgment from Dr. Macartney's Lectures. We consider this accusation altogether unjust. Mr. Syme's paper on the union of wounds was published in 1825; not so very long, therefore, after Dr. Macartney was appointed to the Dublin professorship." There are two assumptions involved in the latter part of this sentence: first, that a period of several years which elapsed from Dr. Macartney's accession to the chair of anatomy in Trinity College, and the publication of Mr. Syme's book, is not sufficient to establish the disputed point of priority; and second, that Dr. Macartney knew nothing of water-dressing, or of the views of inflammation he now promulgates, prior to the date of his university appointment. We are sure that if the writer in question took time to reflect before writing the above, he never would have allowed such vague and illogical phraseology to emanate from his pen. Mr. Syme had annual opportunities of being made acquainted with Dr. Macartney's views, through the medium of the pupils of the latter, who graduated at Edinburgh, and many of whom wrote their theses on water-dressing and the doctrines of inflammation expounded in the discourses of the veteran professor of the Dublin University.

We now take leave of the *Treatise on Inflammation*, and from the great fund of important and original matter that it contains, as well as from the pleasing and simple style in which it is written, we know of no other work we could so earnestly recommend to the attention of our readers. It is

not, like modern works on the same subject, a compilation of matter familiar to every one. Dr. Macartney's treatise, on the contrary, abounds with original ideas from beginning to end.

ON THE ADVANTAGES OF COUNTER-IRRITATION.

BY JONATHAN TOOGOOD, ESQ.

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THE efficacy of counter-irritation in arresting the progress and promoting the cure of disease is well known, but I do not think the extent to which it may be advantageously carried is so well understood. I would not advocate its rash and dangerous use as practised by some, although experience has convinced me that a more free employment of this powerful remedy often leads to successful results. The following cases will illustrate the benefits derived from large issues in diseases of formidable character. I prefer this mode of keeping up counter-irritation to setons, blisters, or moxas, and believe it to be more manageable, more effectual, and less painful. I am not sure that the actual cautery (barbarous as it may appear) should be entirely abandoned, and have sometimes employed it in diseases of bone with manifest advantage.

CASE I.—A young lady of twenty consulted me many years since on account of a swelling in the groin, which was supposed to be a hernia, and for which she had been wearing a truss, under the advice of a medical practitioner. There was a curvature and disease of the lumbar vertebræ, and it became evident that the tumor in the groin, which had been mistaken for inguinal hernia, was occasioned by the pointing of an abscess. I accompanied her to London, and consulted the late Mr. Cline and Sir Astley Cooper, who both confirmed the opinion, but held out no hope of recovery. Under the direction of my estimable preceptor, Mr. Abernethy, (to whose kindness and instruction I am mainly indebted for my success in life,) she was encouraged to strike at the root of the disease by counter-irritation, and to maintain her general health by diet and regimen. I made an issue on either side of the curvature, large enough to contain, in each, forty small horse-beans, which was attended to daily, and kept open for upwards of two years. During this long period she was not entirely confined to the house, or to a horizontal posture. By day she rested on a couch which was fitted to a small four-wheeled carriage, on which she took exercise, and had the benefit of air. A screw, placed at the upper part, raised the head and shoulders at pleasure, so that she could work, draw, and amuse herself in a variety of ways, and, by pushing the lower part of the carriage under a table, she was able to join her family at meals, all of which rendered her confinement less irksome. Under this treatment her general health gradually improved, the swelling diminished until the contents of the abscess were absorbed without any external opening, and she obtained a complete and lasting cure. She was married shortly afterwards, and has since enjoyed uninterrupted good health for more than twenty-five years.

Numerous cases of this kind have fallen under my observation, but this is the only one of permanent recovery I have ever known; and although the maintenance of the general strength of the system may have assisted much in the cure, yet I attribute it chiefly to the local remedy so extensively employed and assiduously kept up.

CASE II.—A woman thirty years of age, who had been suffering from a disease of the leg, of considerable standing, which had resisted all the ordinary means of cure, and was condemned for amputation, consulted me on the propriety of having the operation performed. The limb measured twenty-two inches in its smallest circumference, and was become useless; there were sinusses on the inside, some of which were supposed to lead to diseased bone. I could not detect any with a probe which passed into diseased cellular substance; in fact, it appeared that the disease was confined to that and the integuments, which were hard, unyielding, and much resembling brawn. Baynton's plan of plaster and bandage was tried fairly without success, after which I made a large issue, containing between twenty and thirty peas on the outside of the limb, which in a month reduced it greatly, and, at the expiration of another, all the sinusses were healed, the leg had regained its original size, and the cure was completed.

CASE III.—A boy, eleven years old, was brought to my house, a distance of twelve miles, in a cart, with enlargement of the thigh-bone, and a small wound on the inner side of the limb, just above the condyle, which was suspected to communicate with a lumbar abscess. The disease had been of long standing, and the patient was much emaciated. To the great surprise of the friends, the femur was discovered on examination to be broken, and this was most probably occasioned by his removal; having been seen by the surgeon under whose care he had been the day before, who had not observed it. The diseased state of the bone explained all the symptoms, and as there was no evidence of any affection of the vertebrae, I directed a large issue to be made on each side of the fracture, and kept open for many months. The bone united firmly, and, the boy recovered perfectly.

CASE IV.—A delicate lady, who had suffered so much from an affection of the chest as to make her friends apprehensive that her case might terminate in consumption, had an acute attack of inflammation of the lungs, from the effects of which she recovered so slowly, that the former fears of her family were considerably increased. She was advised to try the effect of counter-irritation as a precautionary measure, for which purpose an issue of the size of a crown-piece was made on the sternum, the good effects of which soon became apparent, and, by keeping it open for a year, the pulmonic symptoms gradually disappeared, and she regained her strength. Five years have now elapsed since the attack, during which time she has enjoyed excellent health, and appears free from disease. In this case a piece of Indian rubber was used instead of peas, and found less troublesome and more convenient.

Dr. Prichard coincides in opinion with me, that large issues are decidedly more beneficial in intense diseases than any other mode of keeping up counter-irritation, and recommends, in certain states of the brain, issues made by a long incision

in the scalp, over the sagittal suture. He says, "This remedy is not found in experience to be more painful than the more usual application of setons, and it is incomparably more efficacious."

In affections of the chest and trachea, and generally in all cases in which moderate counter-irritation is necessary, I have been in the habit of employing the following liniment with marked benefit:

Croton oil, one drachm;
Tartarized antimony, two scruples;
Rectified spirits, two ounces.

It is more effectual and less painful than the ointment of tartarized antimony, or any other counter-irritant with which I am acquainted.

September 1841.

FATAL CASE OF FREQUENTLY-RECURRING CONVULSIONS

IN
AN ADULT FEMALE,
COMPLICATED WITH INFLAMMATION OF THE
RIGHT OVARY, FALLOPIAN TUBES,
AND OF THE
UTERO-VAGINAL MUCOUS MEMBRANE.

By MARTIN HAMILTON LYNCH, M.D.

LATELY LECTURER ON THE PRACTICE OF PHYSIC IN THE NEWCASTLE SCHOOL OF MEDICINE.

Miss —, aged 23, and resident in the northern suburbs of Newcastle, although of the leucophlegmatic aspect, and very soft muscular fibre, had enjoyed good health until two months ago, when the menstrual discharge did not appear, and has been since absent. During these two months, she has laboured under various hysterical symptoms, globus, borborygmi, and hysterical laughter, sobbing generally succeeding seizures of hysterical syncope. She had been much better for some days, when (yesterday, 24th of June, 1838) she was attacked by convulsions, having the appearance of epilepsy, and recurring every five or ten minutes, from their invasion up to the time of my first visit, when I met in consultation Mr. William Dawson. The indisposition of the last two months was ascribed to intense mental anxiety.

June 25.—Having prolonged my visit for half an hour, I witnessed during that time five attacks of convulsions, very like the epileptic; the tongue was protruded and bitten, the mouth distorted, consciousness was lost, saliva was copiously discharged, but coma (even of the briefest duration) did not follow the paroxysms, and intelligence and memory returned the moment the convulsions ceased. Each paroxysm lasted from half a minute to a minute, and the interval between them varied from four to eight minutes. Immediately after the paroxysm, the pulse was 90, soft and compressible, and gradually fell to 84, until again quickened by a return of the paroxysm. Head rather hot, feet cold, rest of the surface moist, and of natural heat; pale urine was passed in considerable

quantity this morning; her eyes were not suffused nor injected, nor has she had headache, confusion of thought, or *tinnitus aurium*; bowels were freed by purgative medicine two days ago. She complains of distressing pain in the right iliac region.

One ounce of spirits of turpentine to be taken immediately, and, if necessary, followed in four hours by an equal quantity of castor-oil; head to be shaved, and cold lotion applied constantly; assafoetida enema. Mustard foot-bath.

Jars filled with hot water were ordered to be placed between and beside her feet and legs.

26, 11 P.M.—The bowels were yesterday well, and promptly emptied by the turpentine, and the other treatment was carried into effect without delay.

From three o'clock on Sunday afternoon to ten P.M. of the same day, she was comparatively free from convulsions, and had only three or four paroxysms. At ten o'clock she took twenty-five drops of Battley's solution, and slept tranquilly during several hours of the night. This morning, after awaking, she was again convulsed, but the intervals of ease are much longer than before the treatment commenced, varying from twenty minutes to half an hour, until half-past four this afternoon: pulse, felt about a quarter of an hour after the fits, varies from 80 to 85, and is very soft and small. At half-past four this evening, the intervals became as short as ever, and still remain so. No coma or loss of intelligence; pain in right iliac region still much complained of. During the forenoon and afternoon of Monday, the 26th, the bowels were again freely and easily moved, (by a mixture containing infusion of senna and Rochelle salts,) and the cupping was repeated. Pale urine passed freely. We have simply ordered that the cloths should be kept applied to the head during the night, and that she should immediately take half a grain of *mur. morph.*

From this period until the 28th, when she died, (about 68 hours after the first seizure,) the paroxysms recurred with the greatest frequency. The left arm was palsied for some hours before death, but there was no coma, and when roused from the extreme exhaustion produced by the often-repeated convulsions, she evidently understood all that passed around her, although the injured state of her tongue rendered it almost impossible for her to speak.

Necropsy.—Substance of the brain and spinal cord everywhere free from the slightest trace of vascularity, and presenting the natural colour and consistence. Dura mater healthy; pia mater covering convolutions presenting a very trifling vascularity, so trifling that it would have escaped notice, if the examination had not been very scrutinizing. No thickening or opacity of the arachnoid in the neighbourhood of the vascularity; very slight vascularity on the surface of the upper portion of the cervical cord; no fluid in the ventricles, or in the sheath of the spinal cord; mucous membrane of the vagina and uterus injected and softened; left ovary healthy; right ovary swollen and much injected; right Fallopian tube also vascular; left nearly as vascular. From each Fallopian tube and right ovary are suspended by pedicles oval sacs containing transparent fluid. The walls of these sacs exhibit a vascular arborization; hymen perfect. Lungs, heart, and abdominal viscera healthy.

REMARKS.

Shortly after I had witnessed the progress of this very peculiar affection, I took the trouble of searching a vast number of the works or journals most likely to contain similar or analogous cases, but failed to discover one bearing the slightest resemblance to it; whether it be considered an extraordinary specimen of hysterical convulsions, (the view I am inclined to take of it,) or be deemed an instance of cerebro-spinal disease, somewhat like certain formidable and obscure cases mentioned by Abercrombie.

The very circumstance that it cannot be collated with any published reports, is sufficient to prove that positive and satisfactory inferences cannot be drawn from it, for medicine, as practised by the well-trained and cautious English physician, is a purely inductive science, not permitting its professors to jump to conclusions from the examination of an isolated fact, however carefully it may have been observed and recorded. Nevertheless, this case furnishes abundant materials for reflection and speculation; I shall, therefore, proceed to weigh the value and examine the signification of the symptoms, as it were, checking them by a reference to the dissection; and secondly, I shall make a few observations on the treatment.

That the patient did not suffer from epilepsy, was sufficiently shown by the absence of coma or stupor after the paroxysms of convulsions, by the previous existence of unequivocal hysterical symptoms, and by the extremely frequent recurrence of the convulsive attacks.

The following reasons go very far to prove that the disease did not consist in inflammation of the brain proper or spinal cord, or their membranes; there was no coma, stupor, or delirium; there was no pain of the head or back; there was no fever present; the urine from the very commencement was pale; and finally, the dissection exhibited the substance of the brain and cord perfectly healthy, and a very trifling and partial vascularity of the pia mater, as is often witnessed in the bodies of persons having died from diseases altogether unconnected with the cerebro-spinal mass: indeed, it is astonishing that the brain and membranes were not congested after the frightfully frequent seizures of convulsion. I have said that the urine was pale from the commencement, because I believe, that although the urine is sometimes pale in cases of myelitis or spinal meningitis, it does not present this appearance at the early stages of these inflammations.

Now, supposing the disease to have been hysterics, one cannot but be struck by several curious features which it presents when viewed in this light; it ended fatally in sixty-eight hours; there were unequivocal signs of inflammation discovered on dissection, in the right ovary, Fallopian tubes, &c., signs which suggest the following question: Did the inflammation seated in the genital parts, acting by means of irritation of the nerves supplying these organs, produce the convulsions, or was this inflammation simply coincident with the convulsions? The circumstance that the pain in the right iliac region was present from the beginning, is calculated to favour the former opinion, the admission of which tends to prove that at last morbid anatomy has thrown some light upon the uterine origin of hysteria, which has hitherto been accounted for by reference to symptoms alone.

I have already expressed my opinion, that the disease of Miss — was not inflammation of the brain or spinal cord, or of their membranes; and I believe the reasons I have assigned in support of my opinion are sufficiently numerous and satisfactory; I do not, however, on that account, hesitate to compare the case of Miss — with several cases related by Abercrombie, and termed by him cases of "a dangerous form of *meningitis*, which leave no trace but a vascularity of the membranes." The comparison may prove useful, but, at all events, will be interesting, because, in Abercrombie's cases and in mine, the patients, for weeks before the attack of actual disease, were in a similar nervous, excited, and almost sleepless state—a state which seems to be the cause of the disease in Abercrombie's patients, whilst in mine, although not the cause, it gave the disease a peculiar and intractable character, perhaps demanding a special mode of treatment. Moreover, in some of Abercrombie's cases, the vascularity was evidently such as we often see, when there is no cerebro-spinal disease, and in two or three there was no vascularity at all, so that there is room for doubting that this very distinguished physician was correct in calling all these cases *meningitis*.*

The affection alluded to by Abercrombie occurred in nervous excitable individuals, temperate, but by no means robust, male and female, and was usually preceded by days or weeks of mental anxiety and watchfulness; such had been the condition of my patient for two months before the fatal attack; and again, all Abercrombie's cases terminated fatally, until he began to treat the disease by powerful stimulants, wine, &c., by means of which he was most successful—so in the case of Miss — I shall presently, in discussing the treatment, point out that there were some grounds for supposing that a decidedly stimulant plan would have been that best suited to the disease. These are the analogies between Abercrombie's cases and that of my patient; in other respects they differ much: convulsions are very rarely observed in the class of cases referred to by Abercrombie, and when they are present, do not recur so frequently, nor at so early a period; the only disorder of muscular action observed in the majority of his cases was trembling, like that of delirium tremens. Besides, in Dr. Abercrombie's cases, delirium and hallucinations were prominent symptoms, although not observed in the case of my patient.

Having had abundant time for turning over in my mind all the circumstances of this very difficult case, I do not hesitate to say that, in my opinion, such a case should be treated by wine and opium, exactly as if it were atonic delirium tremens. My reasons for thinking so may perhaps be guessed from what I have advanced in pointing out the resemblance between the case of Miss — and those of Abercrombie; but, to prevent misconception, I shall now briefly state the arguments in favour of this mode of treatment.

Miss — was, for two months before the attack, excited, nervous, depressed in mind, and deprived of sufficient sleep,—a state exactly resembling that observed in the majority of Abercrombie's cases, which had proved so fatal, until the stimulating

treatment had been adopted; the case of Miss — resembled those of Abercrombie, also, in the circumstance that the circulation was not excited, (indeed, rather depressed,) and the skin cool; and lastly, the only improvement that occurred during the rapid progress to a fatal event, was during a few hours on Sunday afternoon, when she must have been under the stimulating influence of the turpentine, which had been administered immediately after our visit.

Although I thus confess that the treatment adopted was inefficacious, I believe that it was the best that could be adopted by medical men, uninstructed by morbid anatomy, and not having it in their power to derive information from previous experience of a similar malady.

I cannot conclude without availing myself of this opportunity, in order to express my admiration of the perseverance and honourable enthusiasm in the pursuit of morbid anatomy, of my friend Mr. Dawson, whom I have so often seen, setting at nought the physical exhaustion consequent upon the fatigues of an extensive practice, exert himself to remove the obstacles opposed to dissection by the prejudices of relatives, and pursue the examination with equal zeal and patience.

London, September 22, 1841.

ACADEMY OF MEDICINE.

PARIS.

INSTRUMENT FOR SEPARATING THE EYE-LIDS.—M. Velpeau read a favourable report on an instrument invented by Mr. Kelley Snowden, for the purpose of keeping the eyelids open during operations on the eye. M. Velpeau had employed this instrument in more than 150 operations for strabismus, and found that it was much superior to any other which he had seen.

OPERATION FOR SQUINT IN THE EIGHTEENTH CENTURY.—M. Velpeau also read a note from M. Ribail, containing an extract from "the Transactions of the Academy of Rouen, 1743." In one of the memoirs presented to the academy, Lecat described the feats of a charlatan, who operated before a numerous body of spectators. The following is Lecat's description of this operation:—

"Having fixed the globe of the eye, by means of a needle threaded with a silk ligature and passed through the conjunctiva, he divided with a scissors the fold of conjunctiva, which was thus raised up; he then covered the sound eye with a plaster, the squinting eye became straight, and the spectators regarded the cure as miraculous. On Lecat's interrogating him on the object of his operation, he answered that squint depended on unequal action of the muscles of the eye, and that to cure it, one of the muscles should be weakened."

EMPLOYMENT OF DEUTO-IODURET OF MERCURY.—In the year 1821, M. Coindet of Geneva employed the preparations of iodine in the treatment of scrofula. In 1822, Professor Brera of Padua introduced them as a remedy in syphilitic affections; at a somewhat later period, M. Bielt employed them at St. Louis for various diseases of the skin, and drew attention particularly to the proto-ioduret of mercury.

In 1836, M. Gibert made some experiments at

* I have beside me at the moment of writing, Gendrin's French Translation of Abercrombie's second edition, but it is sufficient to refer to his last few pages on *meningitis*.

the Female Venereal Hospital, with the deuto-ioduret of mercury, prepared after the formula of M. Boutigny. During the course of last year, M. Gibert has repeated his experiments at St. Louis, and obtained such advantageous results, that he is desirous of directing the attention of the profession to this remedy. It is peculiarly applicable to those difficult cases which resist ordinary remedies, and to scrofulous eruptions, which resemble in appearance syphilitic diseases of the skin. The deuto-ioduret of mercury is soluble in a solution of iodide of potassium, with which it combines and forms a double iodide of mercury and potass. The following is M. Boutigny's formula for the syrup:—

Deuto-ioduret of mercury, one scruple;
Iodide of potassium, fifty scruples;
Water, fifty scruples.

Dissolve, filter through paper, and add of fine syrup, 2,400 scruples.

A common table-spoon will contain twenty-five scruples of the syrup, and this is the dose in which M. Gibert commonly gives it. Each dose will contain one-fifth of a grain of the deuto-iodide of mercury, and ten grains of iodide of potassium. The proportion of the iodide of potassium employed in this syrup, is greater than would be required to hold the deuto-ioduret in solution, but it is useful to have an excess of the potass. The taste of this syrup is much more agreeable than that of any other mercurial syrup, but should the patient object to it, the following pills may be substituted:—

Deuto-ioduret of mercury, 0·10 scruples;
Iodide of potassium, 5·00 scruples;
Gum arabic, 0·50 scruples.

Honey enough to form into twenty pills. Two of these pills taken in the morning, will represent the same dose as the tablespoonful of syrup.

M. Gibert related several cases of syphilitic and scrofulous eruptions, in which the syrup of deuto-ioduret of mercury succeeded, after all other remedies had failed to obtain a cure.

ROYAL BERKSHIRE HOSPITAL.

(Practice of Mr. F. A. BULLEY.)

FRACTURE OF ACROMION; FOLLOWED BY LOSS OF MOTION AND SENSATION.

RACHEL PEMBROKE, a pale, delicate-looking girl, *æt.* 24, was brought to the hospital in the evening of the 24th of October, having received an injury to the shoulder, through a heavy piece of chalk falling on it from a considerable height, while she was engaged in filling baskets at the bottom of a well nearly ninety feet deep; she was apparently suffering greatly from the shock occasioned by the accident, appearing alternately very pale and almost sinking, and shortly afterwards flushed and feverish. On examining the shoulder, I could discover no displacement of that joint, or of the clavo-scapular articulation, and I could rotate the head of the humerus in all directions in the glenoid cavity. The shoulder had, however, lost its usual rounded appearance, and the head of the bone, when left to itself, seemed to droop downwards towards the axilla. She had no power of moving

the arm, which hung down in a useless manner, and she said it felt altogether numbed and without feeling. On passing my finger along the course of the spine of the scapula, she complained of pain from the pressure, more especially just at the root of the acromion process, where there was a slight bruise, indicating the part where this portion of the bone had been broken off by the accident, where the spine of the scapula seemed to terminate abruptly. I could discover no other lesion of the joint. The arm was raised and supported in slings from the elbow, with a view to bring up the fractured acromion into its natural position.

26. By daily attention to the slings, the arm has been kept in the same position. The numbness, however, remains unchanged, and there is no sign of returning muscular power in the arm.

28. Considerable ecchymosis has appeared on the inner and lower part of the arm, and there is a hardness and depression over the lower part of the biceps muscle, which led me to think that this muscle had been partially torn at the time of the accident. Some slight return of muscular power in the arm, but the fore-arm remains motionless and numbed; a stimulating liniment was directed to be used, and the fore-arm was laid prone upon a splint, extending from the hand to a little distance beyond the elbow, and fastened to it by a bandage.

Nov. 1. The application of the splint has improved the movement of the fore-arm, which now, instead of feeling numbed, is recovering its sensibility. Prickling and tingling sensations, and a sore feeling over the whole arm, the tingling greatest in the fingers; a sensation of numbness, however, still remains along the course of the ulnar nerve, to its extremities in the fingers.

Nov. 5. The sensibility of the arm had not become much improved since last report, nor had the patient recovered full muscular power in the limb. The acromion process had, however, become united by a tolerably firm ligament, and there was now no drooping of the arm. She was discharged from the hospital, in consequence of her being found to be pregnant.

Dec. 4. She has been using stimulating liniments since last report, and she can now perform all the ordinary movements of the joint, except that of bringing the limb into an elevated position, which she however does with some difficulty and pain.

It would be difficult to say exactly on what particular cause the loss of sensibility and muscular power in this case depended. Perhaps, as far as the muscular movements were concerned, they might have been impeded in the shoulder by the lesion of the deltoid, one of its attachments being necessarily disturbed by the fracture and in the elbow-joint, by the partial rupture of the biceps, which had apparently happened.

The most singular part of the case was the loss of sensibility, which I imagine must have arisen from a stretching or elongation of the nerves, which the dropping of the arm from the glenoid cavity, occasioned by the altered condition of one of the origins of the deltoid, would probably produce. I have observed a similar loss of sensibility in persons who have been in the habit of lifting heavy weights, only in a less degree, from the operating causes being probably more gradual; in these persons a slight dropping of the arm has

been perceptible, and I believe that in some cases of painters' paralysis, this effect, that is, a dropping of the arm, has been perceived, and I imagine that in some of these latter cases, where the fore-arm has been laid upon a splint, the great relief which has been obtained might be referred to the suspension and approximation of the humerus to the glenoid cavity, by the slings used at the time, allowing the stretched or elongated nerves to recover their tones, rather than to any particular position in which the fore-arm had been placed. Probably the best treatment in such cases as the preceding would be to endeavour to produce as firm a ligamentous union of the fractured portion of the bone as possible; and the greater the pains taken to effect this, the greater would be the chance of an osseous union, and the permanent restoration of the functions of the injured nerves. But I believe a bony union is seldom obtained, owing to the difficulty of keeping the fractured portions in exact and close apposition, and (as in the case of transverse fracture of the patella) not from any peculiarity in the situation of the process.

CHRONIC LARYNGITIS.

William Knight, a tile-maker, æt. 32, who had been lately much exposed to wet while working at his trade, was admitted into the hospital, December the 3rd, with the following symptoms of what might be considered as chronic laryngitis:—There is a general erythematous condition of the lining membrane of the fauces. Externally, the larynx appears swelled, especially the cricoid cartilage, which is much larger than natural, and, in common with the other cartilages, very tender to the touch. He speaks in a hoarse, low manner, scarcely beyond a whisper. He has occasional difficulty of breathing, unattended with pain. Feels himself generally worse, and speaks more hoarsely in thick heavy weather. He has no particular pain in swallowing. Has experienced increased difficulty in breathing during the last week, especially after any exertion. Has never had any primary venereal disease. He states that his present complaint came on about three months ago, rather suddenly, after working in the wet, with a little hoarseness, unattended with pain. He had not previously been particularly subject to cold. Had continued at his labour ever since, his general health being but slightly affected. Swallowing hot fluids made him cough. Five leeches were applied last evening, which had given him great general relief. One grain of calomel twice a day. The fauces to be brushed over with a solution of lunar caustic, ten grains to the ounce. A small blister to be applied to the fore part of the throat, and kept open.

12. There is a slight improvement in his symptoms. The blisters have been allowed to heal.

Croton oil, one drachm; olive oil, two drachms; a liniment to be rubbed in over the larynx, once a day.

14. The swelling on the fore part of the throat has become greatly diminished. The liniment, having been used twice, produced an abundant eruption of pustules, which have coalesced near the centre of the throat, and formed a thickish yellow crust. He expresses himself as generally better, although considerable hoarseness remains.

17. *Cerat. cetacei* has been applied to the crust, which is now exfoliating and falling off. He is

altogether better. Half a grain of opium to be added to each calomel pill. Has had stertorous breathing to so great an extent nightly since his admission, as to prevent the other patients in the ward from sleeping; but this symptom has in a great measure disappeared since the use of the croton oil.

22. Mouth rather tender. To leave off the pills. Speaks louder and more clearly. To apply a bread and water poultice to the throat.

27. The eruption caused by the liniment of croton oil has entirely disappeared. Speaks still louder than at last report, and has no uneasiness or cough from swallowing hot liquids. His general symptoms have become greatly improved. He thinks he is nearly well enough to leave the hospital.

29. Through exposure to cold in the garden, he is suffering a slight return of his complaint. Complains of sore throat, and was said to have made the same noise as formerly during sleep. To resume the pills, and to have a warm-bath in the afternoon.

December 6. The pills have been discontinued for a few days past. The appearance of the throat externally is much improved, the hardness of the larynx having almost entirely disappeared. There is still, however, a slight hardness over the cricoid cartilage.

8. To apply iodine to the throat externally.

11. Has been applying the tincture of iodine since last report. As the external hardness and enlargement had disappeared, and the lining membrane of the fauces had recovered its natural healthy appearance, and as he had no cough or difficulty of swallowing remaining, he was discharged from the hospital.

He appeared shortly after as an out-patient, having used nothing but the tincture of iodine to the part. He spoke in a clear and easy manner, and seemed to all appearance quite recovered from his disease.

Although this patient repeatedly affirmed that he had never been affected with syphilis, I could not help thinking that he had deceived me, and that his disease, in a measure, had its origin in, or had been modified by, a venereal taint. The marked improvement following the use of calomel confirmed me in this suspicion, and I have no doubt but that if the disease had been allowed to proceed unchecked, it would have gone on to ulceration of the cartilages of the larynx, and probably have been productive of fatal results.

ABOLITION OF QUARANTINE.

THE English government has recently promulgated an order relative to steam-boat navigation, which is equivalent to an abolition of quarantine.

"The quarantine, for a vessel with a clean bill of health, will henceforward be reduced to fourteen days, including the time of voyage; and should a suspicious death take place during the voyage, the quarantine of fourteen days shall recommence from the day on which the death occurred." This, we say, is equivalent to a complete abolition of quarantine, because the period of voyage between Alexandria and London, or Southampton, is, at

least, sixteen or seventeen days, for a steam-boat. We trust that the same rule will soon be applied to the merchant service.

A MAN CHOKED BY HIS OWN TOOTH.

A Molar tooth of an adult man, which had passed through the larynx into the trachea, on the instant of its extraction by a dentist. On the first application of the instrument, a fragment of the crown was chipped off and removed from the mouth by the operator. By a second attempt, the tooth was started from its socket; but, on being loosened from the claw of the instrument, it suddenly passed down the throat, during an effort of inspiration, and was not seen afterwards by either the patient or operator. The man felt, at the instant, a momentary, sharp, pricking pain at the top of the windpipe. This was instantly followed by a severe fit of coughing, which soon went off, but recurred again, several times, without any evident cause, and at each time with less and less severity, until, after a few hours, it ceased to produce any further annoyance. He complained, also, that from the moment of the operation, he could not get rid of an undefinable uneasiness in the chest; a sensation of weight in breathing; and a tendency to draw heavy sighs, which haunted and kept his mind in a continual state of inquietude. Occasionally, he coughed up a little frothy mucus. He had no hoarseness, no acceleration of breathing, no pain in any part of the chest, and no difference in the relative facility with which he took in or breathed out the air. In twenty-four hours after the accident, the following stethoscopic signs existed:—a mucous rattle in the lower part of the trachea; both sides of the chest gave an equally clear sound on percussion; but, notwithstanding their similarity in this respect, there was a marked difference in the intensity of the respiratory murmur,—that of the right side being more feeble than that of the left. These signs were fixed, and uninfluenced either by position of the body or by violence in efforts of respiration. A difference of opinion, on the part of the gentlemen who saw him in consultation, as to the nature of the affection,—the case being novel, and involved in much obscurity,—caused a delay in any attempt at operation, until symptoms had gone so far, that no good could result from the use of the knife. The man died on the eleventh day from the occurrence of the accident, having passed successively through the several stages of bronchitis, pneumonia, and pleuritis, first of the right, and secondarily of the left lung; and the obnoxious tooth was discovered, lying in the right bronchial tube, about one inch below the bifurcation of the trachea; the fangs were directed towards the lung, and the broken crown looked up towards the larynx.—*Mr. Houston's Catalogue.*

THE PUFF MEDICAL.

The following paragraph appeared in the *Times* newspaper of Wednesday last:—

"Mr. Rashleigh, M.P., has been confined for

some time to his bed under Mr. Liston, who is attending him for a very severe attack of gout in both legs."

We regret that a man of Mr. Liston's standing in the profession should descend to this despicable method of puffing himself through the political press. How can we attempt to put down quackery, when the *élite* of the profession set so unworthy an example? Is it so high an honour for Mr. Liston to attend an M.P., that he should thus pompously announce it, or does it require eminent surgical skill to relieve a man of an attack of gout?

OBITUARY.

M. DE CANDOLLE, the illustrious botanist of Geneva, died last week, in his native town, of dropsy.

BOOKS RECEIVED.

Practical Observations on Injuries of the Head. By William Sharp, F.R.S., &c. Churchill, London. 1841, 8vo. pp. 168.

TO CORRESPONDENTS.

The publisher of the *PROVINCIAL JOURNAL* begs to inform gentlemen desirous of completing their sets, that a new and improved series, containing Sir A. Cooper's papers, &c., commenced with the present volume, April 3, 1841. The back numbers from this period may be obtained through the medium of any bookseller or newsman in town or country.

Notice to Subscribers.—The close of the first year.

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CLINICAL LECTURES

IN COURSE OF DELIVERY DURING THE PRE-
SENT SESSION,

AT
GUY'S HOSPITAL.

By JOHN MORGAN, Esq.

(Published with permission of the Lecturer,)

WEDNESDAY, MARCH 31, 1841.

LECT. I. *On the objects and advantages of Clinical Instruction—Advice to Students on their Studies, Pursuits, and Manners—and on Fractures.*

GENTLEMEN,—When I have met you on former occasions, this season, as a lecturer on surgery, it has been my object to make you acquainted with those principles by which the practice of a scientific surgeon must always be guided, and to point out the application of such principles to the remedial and general treatment of diseased action and accidental injury. In commencing a course of clinical lectures, I now meet you for the purpose of drawing your attention to the practical illustration of what I have already taught you, and which you daily meet with in the living examples of disease, and of injury from the effects of mechanical violence, in the persons of those who are placed under our care in this hospital.

Before, however, I enter upon the subjects more immediately connected with my present intentions, I think it right to detain you a few minutes whilst I offer some introductory remarks, and give a few words of advice, which I trust you will find useful to you, and which I cannot so well offer at another time. You must be all aware by this time that surgical lectures are intended only to convey general ideas on the nature and treatment of surgical diseases; and that you are convinced of the fact, that the science of surgery can only be taught where the principles of that science are proved to be correct, by practical experience, is shown by your having chosen a medical school attached to a large hospital, for the purpose of acquiring the only knowledge which can be really useful to you in your profession, namely, a *practical knowledge of disease*. We must all, I think, agree that it would be as absurd for an anatomical teacher to attempt to convey all useful information to you by the aid of wax models, dried preparations, and drawings; as it would be for a surgical lecturer to endeavour to fit you for the practice of our profession without affording you an opportunity of seeing the diseases and accidental injuries he describes, on the living subject. What dissection is to the anatomical student, hospital practice is to the medical student; and as you know, in dissecting for the first time, how much time may be wasted, how much difficulty may occur in dissecting a dead subject, without the help of a demon-

strator to point out the different parts which are exposed to your view and the different varieties in structure which you meet with, so you will find that in your investigations of the diseases of the living subject, an equal advantage may be gained by the aid of a surgical demonstrator. To commence the duties of that important office, I now appear before you. In the capacity of surgical demonstrator; or, in other words, as your clinical instructor, I have now to offer you my services.

It may at first sight appear, that when a disease is once recognized, and the ordinary remedies are known, a medical practitioner must be a perfect master of the case, and [consequently that a detail of the symptoms, and an explanation of the reasons of our treatment, must, when applied to a number of cases of the same disease, become a tiresome repetition. And so indeed it would, if we were all possessed of the same peculiarities of constitution—the same susceptibility to disease, and the same susceptibility to receive impressions from ordinary remedies. But constituted as man is at present, surrounded and influenced by so many physical and moral causes, capable of disturbing the functions or destroying the structure of the different organs which compose his living frame, and modified as we are by constitutional peculiarities, we find a variety in the human constitution, which requires on all occasions corresponding variety in our treatment. To understand, then, the reasons for adopting plans of treatment, for what may at first sight appear to be a succession of the same forms of disease, is a point of the utmost importance. This, as students, you can only understand from clinical study and instruction. You may walk the hospitals—you may attend all lectures—you may take notes of every case; but when you go into practice, you will feel that one thing has been wanting in your medical education. A link will be absent in the chain, which ought at all times to connect in your memory the instructions or theoretical views of your teachers with the practical illustrations of their truth. Although you may be able to recollect all that is really important in your lectures; although you may have registered every important case which you meet with in the wards of our hospital, you may still feel embarrassment and diffidence, when, in private practice, you are at the bed-side of a patient with whose disease you previously thought you were well acquainted. You may have seen this disease in a variety of forms, and for each form that you have seen you may be provided with a remedy. But you now see it not only in a new form, but in a constitution which will not bear the use of one of your remedies, and you are, therefore, “all at sea.” This is one of the many difficulties which an imperfectly-educated surgeon has to encounter in the commencement of his practice. This is a difficulty which can only be surmounted by a clear understanding of those points in practice, and of the application of general laws to particular or difficult cases, which it comes within the province

C

of a clinical teacher to point out, describe, and explain.

I shall endeavour, in my lectures, as I have always endeavoured in my visits to the patients in the wards, to give you every assistance and instruction in my power, and of course you must endeavour, by consulting the writings of others, to learn what those who have gone before you have done in the prosecution of this study. But recollect that although, without lectures and reading, it would be next to impossible for you to acquire a perfect knowledge of your profession, yet these must necessarily have reference to the elementary instruction you require. They will always teach you the grammar and the construction of the language; but to be able to write it well, to read it well, and to speak it well, you must work and think for yourselves.

To make yourselves, then, perfectly acquainted with the different diseases to which the body is subject, you must *see* those diseases yourselves, and your observation must not be a cursory one. You must endeavour to trace the cause of that disease from its commencement; to ascertain the time at which it began, and the nature of its progress, and its gradual or sudden effect, not only upon the part, but upon the functions of the system generally. Should all known remedies fail, you will then endeavour, if a case terminate fatally, to investigate the nature of those organic changes which have been the cause of death. This ought never to be neglected, for it is by the study of morbid anatomy that we have been made acquainted with the true nature of many of the most important diseases to which we are liable, and enabled to administer appropriate remedies; and here it is that anatomy and physiology come most powerfully to our assistance. Who that has not, by repeated dissection, known the appearance of the perfectly healthy body in all its parts after death, could possibly detect those slight indications of disease, which although apparently trifling in their appearance, claim our most serious attention, when by the aid of the science of physiology we are enabled to trace the symptoms in the living body to sympathy with a local, and perhaps unsuspected source of irritation manifested after death? Therefore, after you have made yourselves good general anatomists, let the study of morbid anatomy engage a large share of your attention, for without it you may rest assured that you can never attain excellence in the knowledge and practice of your profession.

In alluding to the paramount necessity for *seeing* disease in the living, as well as the morbid appearances which present themselves after death, it is right that I should give you one caution. It has reference more particularly to your conduct as hospital students, but it will be a useful one to you in after life. Be careful what you say respecting the nature and treatment of a patient's case, either in his presence, in the presence of his relations, friends, or attendants; or under any circumstances which may make him or them acquainted with what it is quite unnecessary for them to know. Ever be careful of eaves-droppers. Now do not mistake me. The truth—nothing but the truth—ought always to be spoken, but there is a time and a place for all things, and it is not always necessary to speak the *whole* truth to patients. Deception is always despicable; but, for

the welfare of our patients, concealment is sometimes necessary. The concealment to which I allude is neither criminal nor improper—it consists in avoiding the abuse of that unruly member, the tongue. Now I will illustrate and explain what I mean to insist upon. In the room set apart, in this noble institution, for those who are anxious to become our patients here, on our taking-in days, you will all of you have free access to them before they are seen by the medical officers. Now you may interchange thoughts and opinions in the *hearing* of those applicants for relief, which are not only improper, but injurious to the interests not only of them but of yourselves. Often and often has a patient been driven from the "taking-in" room of a hospital, from having heard the tittle-tattle of medical students in reference to his case. If the case be an urgent one, is not this injurious to the welfare of the listener? But whether urgent or not, we are liable to the loss of the opportunity of showing you the treatment of disease, either by local or constitutional means, by the very great imprudence I am alluding to. Is not this injurious to your interests as well as theirs? Let me illustrate what I mean by one or two examples. A patient, in one of our wards, labouring under serious disease, was asked by one of the pupils where he came from. He replied, from Wisbeach. "O," said the pupil, "my good fellow, you will never see Wisbeach again;" and this had such an effect upon him that he immediately left the hospital. Let us take another instance from the taking-in room. A delicate, hysterical female presents herself, with a small tumor in the breast, which she wishes to have removed by the most lenient measures—as she herself would say *dispersed*. Now, this is what is commonly considered as an interesting case, and a group of pupils collects around the patient. The dresser of Mr. A. examines the breast, and says, "O! here is a nice case for operation. Two semi-elliptical incisions, embracing the whole surface, and then cleanly dissected out." "No," says a pupil of Mr. B., "it would be done much better by a crucial incision, and dissecting back the flaps. B. always takes away the whole of the breast, but generally leaves the nipple." Another young gentleman observes, "That's a case for C., he stands at nothing; he'd have it out in a minute, root and branch;" and the poor girl, now thoroughly frightened, hurries away from the tender mercies with which she is threatened, as horrible in her imagination as the tortures of the Spanish Inquisition.

Now surgeons are sometimes equally in error with their pupils, and communicate to their patients what mere patients have no business to know, until they have found it out themselves. There can be no necessity for telling a subject for operation, that you are going to give him pain; common sense will teach him this. Let him know when you are going to commence an operation, and encourage him to bear it firmly; but do not remind him of what he has to undergo. It can do no good, and may possibly unnerve a strength of mind and body previously wound up to the sticking point. I remember an Irishman, who had a fracture of his frontal bone with depression, but no very urgent symptoms had then supervened. He was brought into the operating theatre, for the purpose of being trephined to raise the depressed portion of bone,

and Mr. Cline, who was constantly in the habit of preparing his patients for the knife in the manner I have been deprecating, said, "Now, my good fellow, you must be firm, very firm, for I am about to give you a very great deal of pain." When the Irishman leaped from the table, exclaiming, "Och! by Jasus, but you won't though;" rushed from the theatre, and was never seen in the hospital again.

And now for eavesdroppers or listeners. Let me illustrate the consequence of what may result from want of caution under this head. I shall do so by relating an anecdote which may be considered the more interesting, as it has reference to the practice of the celebrated John Hunter. A very moral young gentleman had been undergoing some violent exertion by which he had strained the interior of the walls of the abdomen. He complained of a good deal of stiffness and pain above the pubes, and the apothecary whom he consulted ordered leeches, followed by fomentations and poultices. There were only the mother and an old nurse in the house with the youth, and they became naturally suspicious at leeches and poultices to a part which they were not allowed to examine. Mr. Hunter was called in, and the nurse, who was very curious to determine exactly how matters stood, applied her ear to the door, and overheard him telling the apothecary that there was a severe strain of the abdominal muscles. She directly ran to her mistress, "O marm, its just as I thought!" "Why, what's the matter?" "O marm, Master Thomas has been and strained his abominable muscle!" (loud laughter.) I may give you an instance also to show how cautious you should be in your manner of speaking before your patient as to the nature of his disease. A patient of Dr. Babington, who had some very obscure abdominal swelling, saw that considerable doubt was entertained as to the precise disease under which he laboured, and consulted one of my colleagues. He saw Dr. Babington some time afterwards, and said, "O, sir, I wish I had consulted Mr. — sooner. He saw directly what was the matter." "Why," replied the Doctor, "what did Mr. — say it was?" "O, sir, why he said directly it was a *tumour*." So you see, gentlemen, how much may be gained by a few generalities in your professional consultations; but I repeat, be careful in speaking before your patients—few have had occasion to repent having said too little—many of having said too much.

Let me give you another piece of advice. Avoid that error which too many of your predecessors have fallen into, by giving their attention almost exclusively to what I may term monstrous cases. The operations and the after treatment of those cases where our most difficult, dangerous, even desperate operations are required, certainly and properly form objects of irresistible attraction, but let them not throw into the background other cases of every-day occurrence. For one case of important operation you will, when you get into practice, meet with fifty cases of common sore leg, or other common disease. Do not, therefore, turn away your attention from those cases which may now appear trivial, and hardly deserving your serious notice. In your future practice, you may depend upon it, you will regret having done so. No case, however apparently trifling, can be presented to your notice, from which you may not gain useful

and practical information. Do not suppose that every sore leg which you see in the hospital is a local disease requiring merely poultices or strapping. The constitutional treatment even in these cases is often more important than the local. There can be no example of disease, whether local or constitutional, whether slight or severe, from which you may not gain instruction. Recollect you may have rich patients as well as poor ones with sore legs.

And now let me direct your attention to one part of your professional studies which comes more particularly within my own province as surgeon to this Institution—I mean the study of ophthalmic surgery; and I cannot but believe that the value which we all attach to the sense of sight, must render it unnecessary for me to dwell upon the importance of those diseases to which the organ of vision is subjected. Do we not all know, do we not all feel, that amongst the various calamities to which a human being is subjected, the greatest, the most intolerable, is the loss of sight? and as the future possession or total destruction of this inestimable blessing must in many cases depend upon the knowledge and experience of the surgeon, you can need no argument of mine to convince you of the necessity for a more than common acquaintance with this particular branch of your professional studies. You have now, gentlemen, an ample opportunity of seeing the appearances and the treatment of diseases of the eye in our Eye Infirmary. Let me entreat you not to neglect it. I will dwell no longer on this subject, for it is well known that for many years I have been most zealous in my endeavours to prove the necessity for an inseparable connexion in practice, as it is in a pathological point of view, of ophthalmic with general surgery.

One word before I conclude these remarks. Beware of losing even for a day those opportunities of acquiring professional knowledge which are now afforded you, by the persuasion of your acquaintance, enforced by the use of one of the most insidious words in the English language. I mean the word *only*. You will in this metropolis have many attractions to your thoughts and your minds from your studies, but take care how you *begin* a course of dissipation, for when you once begin you will find it difficult to stop. For instance, an operation is to be performed, or a lecture given—the Queen is going to open parliament,—there is an important debate in the House of Commons,—Kean is to play Hamlet or Macready Macbeth,—there is a jovial dinner-party, a ball, or a masquerade; you feel unwilling to leave your studies, but it is only this once, and at last you find that you have *only* a few months left to cram and grind for examination, and when you get into practice you will be convinced when too late that you have *onlied* yourself into a professional nothing. I am not one of those who wish to place a strict limit upon the enjoyment of all rational recreations and amusements—far from it—but I do say that a medical student who is to be seen in Covent Garden Theatre when he ought to be found in the theatre of his own medical school, is making a very great fool of himself, to say the least of it. No; business first, amusement afterwards. In following your professional career, you will, like your predecessors, occasionally meet with difficulties and dangers in your

path; but whatever may happen, be not discouraged; pursue a steady, straightforward course, and your success is certain, remembering that the name of a British surgeon is closely connected with his character as a man and as a gentleman.

FRACTURES.—I now turn to the first subject on which I purpose to make clinical observations; but before I refer to the symptoms and general treatment of the cases of fracture at present under my care in this hospital, I shall make a few introductory remarks on the pathology of bone as connected with this subject. You have learnt, of course, from my colleague Mr. Bransby Cooper, how materially bones differ from the soft parts of the human body, both as regards their structure and their uses. I shall now show you how widely they also differ from all other parts as regards their pathology. You all know that when the soft parts of the living body are divided by wounds or accidental injuries of any kind, a natural repair is effected; in the first instance, by the union of the divided surfaces either to each other or to some adjacent part. This is always the case, whether union be established by adhesion or by granulations. Integument or muscles unite again after division; arteries and intestines to some adjacent part. Thus when an intestine is wounded, the divided edges are everted and the injury is repaired by adhesion to the peritoneum; but in fractures, or, in other words, in wounds of bone, this is *never* the case. In fractures, the repair of the injury is always effected in the *first instance*,—not by broken and wounded parts, but by surrounding, uninjured, and healthy structures. Thus the fractured ends of a broken bone may remain unconnected and separated long after the first step towards a natural repair has been effected, and sometimes for the rest of life. To explain how union takes place, let us suppose that the fractured extremities are in strict apposition, only separated by a coagulum of blood. The periosteum around the divided edges becomes slightly raised by an effusion of fibrinous matter, which increases, raising the periosteum more and more, until a complete casing of fibrinous matter encloses the ends of the bone. Thus union commences first in the periosteum, not in the bone. After a time the coagulum of blood between the broken ends becomes absorbed, and the vessels of the cancellated structure pour out lymph which is the nidus for future bone. This nidus of lymph becomes organized, and then a bony deposit is separated from the blood which circulates through the nidus, and the part is ossified. No bone is deposited until the nidus is organized, and it requires no argument to prove that this *must* be the case, for if bony patches were deposited like petrifications, how could vessels shoot into them? After some time the coagulum and casing become absorbed, and then the bone is restored pretty much to its former condition. Where the broken ends of the bone overlap each other, they are enclosed in a similar case of fibrinous matter, which becomes organized and then ossified, all that being afterwards absorbed which is no longer necessary to strengthen the bone.

I have told you that broken ends of bone do not at first assist in the process of repair; I will now explain to you why they do not and why they cannot do so. You must be all aware that when a wound is made, or an injury inflicted, the con-

dition of the vessels of the part must materially influence the progress of a natural repair. Thus in a clean incised wound the vessels are merely separated, and reunion readily takes place; but in lacerated wounds there is not only separation but partial disorganization, and reparation is not effected without suppuration and granulation. Now a very large proportion of a bone in the living subject is composed of soft parts, and by these alone the vitality of the bone is preserved. By the vessels of the *membranous* part of a bone every injury must of course be repaired, and just consider the effects of a fracture upon these structures. It is the worst kind of laceration. The vessels and soft parts are forcibly rent asunder and disorganized by the breaking of the bony case in which they are imbedded. How can we expect healthy action from the vessels of a part so crushed and deadened? It is contrary to all fair analogy and to all sound reason to suppose that such action can *possibly* take place, and it is, therefore, in consequence of the injury done to the vessels of the fractured surfaces that union between them is prevented, in the first instance, by adhesion. In many other parts of the body a want of union by adhesion leads to union by suppurating and granulating process. This is not the case in bone; and among the various instances we meet with in surgery of the operations of nature in adapting means to ends, I hardly know of one more beautiful and more striking than that which the pathology of bone presents to our notice in cases of fracture. If, as in cases of wounds of the softer textures, the wounds—or in other words, the fractures of bone—required that the process of repair should originate in the divided parts, every fracture must have been a compound one, or non-union by bone would have been the probable consequence. If, as in the case of wounds of the soft parts, a fruitless attempt at union by adhesion between divided parts was followed in cases of fractured bone by suppuration and granulation; of course a compound fracture must be the result, for the matter which formed would require an external outlet. If the wounded surfaces only inflamed, then their wide separation in many cases, and in others the impossibility of keeping them in immovable apposition, would occasion permanent disunion of the broken ends, and the formation of a false joint.

It is a question how far periosteum assists in the production of new bone, and in the secretion of osseous deposit in the healthy bone. This question is one of practical importance, and I think it right, therefore, to say a few words upon the subject. That the vessels of the periosteum nourish the outer shell of the bone, and that the removal of the periosteum from the surface of the bone will destroy the life of the part beneath, are truths which no one in our profession will deny. But that periosteum actually *secretes* bone is positively denied by many of those who admit these established facts. No person can suppose that bone is secreted from periosteum as mucus is secreted from the membrane of the alimentary canal. There is no analogy as regards structure, none as regards function between periosteum and mucous membranes. Periosteum stripped from bone is incapable of throwing out ossific deposit,—bone denuded of periosteum dies; but it is not the surface of the membrane which secretes, as in

the case with mucous membranes, but the vessels which pass from the periosteum into the bone, to anastomose with the branches of the medullary artery. Some say that the vessels from the periosteum nourish but do not secrete bone. Now this is a distinction which I must say I cannot comprehend, for what is nourishment but the deposit or secretion of new matter? and, therefore, if periosteum nourishes bone, it must secrete it. I believe that it does secrete it, for if the medullary artery alone were concerned, how is it that bone is deposited when this source is completely cut off? And further, it is the first part which pours out lymph after fracture, and in comminuted fracture where this membrane is greatly injured, the bony deposit is much more slowly formed. While anatomy, then, teaches you the connexion between bone and periosteum, I hope I have proved that pathology establishes the dependence of one upon the other. The practical application of this doctrine is most important. In the first place, you will be guarded in your prognosis when bone is stripped of its periosteum, and you would remove all the denuded portions in a case of compound fracture before replacing the bone, as otherwise the process of separation would certainly be retarded by troublesome exfoliation. In sawing the bone in amputation you would be careful not to separate the periosteum, or the denuded portion would exfoliate after the stump had completely healed. Whatever your theory may be, these are the facts.

Mr. Morgan was explaining the causes which in some cases prevented bone uniting by the deposition of ossific matter, and giving some general rules for the treatment of fractures, but the hour having expired, he stated that at the next lecture he should apply what he had said to the cases of fracture now under his care in the hospital.

COURSE OF CLINICAL LECTURES

ON

SURGICAL DISEASES.

DELIVERED AT THE HOSPITAL OF LA CHARITÉ,
BY PROFESSOR VELPEAU.

LECTURE II.

CANCER OF THE LIPS.

GENTLEMEN,—Amongst the diseases to which the lips are exposed, cancer is, without contradiction, one of the most serious; an example of which is to be found in No. 14, of the men's ward, and which will serve as the subject of this day's lecture. The patient is a young man, set. 23, robust, and in good health, who has never been seriously ill in the course of his life, and never affected with the venereal disease. He is by trade a mason, and has had this affection of the lip about ten months; it commenced by a chap or cleft on the inferior lip. This chap proved obstinate, became covered with a scale which fell off, and was several times renewed. Soon after an engorgement or swelling accompanied this, and it formed there an ulcerated tumor, which became the seat of acute and frequent lancinating pains. This has gradually but slowly increased until it has acquired the volume of a small filbert:

it is situated exactly in the middle of the lip, and occupies the whole of its free margin, and is covered with a scale, under which an ulcerated surface, lined with granulations which bled easily, may be observed; the lancinating pains which the patient experiences are frequent, but not very violent. The treatment to which this young man has been subjected is altogether unworthy of notice, as it has not in any way contributed to modify the progress and nature of the disease with which he is affected.

This affection, insignificant in appearance, gentlemen, is nevertheless very dangerous: the disease we have here to deal with is a cancerous tumor. Cancer of the lips has been placed by pathologists amongst the class of those cancers which are more easily and surely cured than the others;—I am inclined to believe that this is not the case. I have been less fortunate in the treatment which I have followed for cases most simple in appearance, for ulcerations evidently cancerous, but much limited; and lastly, for cases absolutely resembling that of the young man now in question, I have proceeded to extirpate the disease, and it has returned in the course of three or four months, either in the same place or elsewhere: I shall never forget the case of a young peasant who consulted me, when I was attached to the hospital of La Pitié. He was affected with cancer of the lower lip. The disease appeared to him so insignificant, that he had come from the country for the purpose of having it removed, intending to return immediately home without remaining at all in the hospital. His colour was fresh and florid; he had no pain in any part of his body; all his functions were admirably performed, and his health appeared excellent. With much difficulty I prevailed upon him to remain a few days in hospital. I operated upon him; I removed carefully all the diseased tissue by means of a V incision, and united the wound with the twisted suture. The patient was afterwards attacked with shivering, fever, delirium, and died on the ninth day. I see you are already thinking of phlebitis or purulent absorption; no, gentlemen, it was neither the one nor the other, for on dissection we found hundreds and thousands of cancerous tubercles in the liver. You cannot, however, admit that these cancerous granulations with which this organ was filled, were developed since the performance of the operation, nine days before; they evidently existed previously. Who can tell whether the young mason upon whom I am about to operate, has not similar tumors in some of the viscera, in the lungs, liver, or spleen, which may ultimately cause his death? Who can tell, supposing that these tumors do not exist in the viscera, that there will not be a return of the disease after some lapse of time from the operation? About a year ago I operated before you, in this hospital, upon a man affected with cancer of the middle portion of the inferior lip, and who was in a state of health quite as favourable as in the present case; he was successfully operated upon: in a few days afterwards he was dismissed cured; but, in the course of four or five months, the cancer reappeared at the commissure of the lips, at a short distance from its primitive situation.

I could quote to you ten other cases, similar to those which I have just mentioned; but these are sufficient, I believe, to put you on your guard against this affection, which is so insignificant in appearance, and so apt to deceive you. Recollect

that it is on account of its nature that the disease returns, that its principle is disseminated over the whole economy, that the humours are infected by it, that the local lesion is in some degree but the symptom of a general affection, and that you must be very reserved in giving promise of a radical cure when you operate upon a cancerous subject, even under the most favourable circumstances.

Cancer of the lips presents some peculiar characters; its seat is ordinarily in the inferior lip: it is indeed rare that the superior one is affected. Satisfactory reasons for this predilection have not been given. It has especially been attributed to the irritation caused by the pipe used by smokers, which presses more on the inferior than the superior lip. However, it is certain that chaps are more frequent on the inferior one, and also that these chaps become very often the point of development for cancers in this part. Venereal ulcerations of the lips frequently degenerate into cancer; but I ought to tell you, whilst speaking of venereal ulcers, that they are, even when not degenerated, and when resting on an indurated base, often taken for cancerous sores. Nothing can be more similar; and I am persuaded that venereal chancres with an indurated base have often been extirpated for cancers. Still more recently, I saw in my town practice a case, which might have led to a mistake of this kind. A young man was affected with a tumor of the inferior lip, which had all the characters of cancer: scales covering an ulcer with livid granulations, bleeding on the least touch, and resting on a hard and painful base, vivid shooting and lancinating pains, &c. This young man, at a consultation of physicians held on the occasion, obstinately denied that he had ever had a venereal disease of any kind whatever. Of course, all present then took it for a cancerous ulcer, and acknowledged the necessity of an operation, when the young man, some days afterwards, confessed to one of the physicians that he had had a venereal affection. Anti-venereal treatment was now had recourse to, and the patient was cured without an operation. This fact, gentlemen, ought to place you on your guard against the nature of these syphilitic ulcerations of the lip, and induce you to be cautious in giving your opinion in a definite manner on the cancerous nature of a disease, until you have exhausted all possible means of investigation.

Another peculiarity of cancer of the lips is, that the progress is more slow when the disease is seated in the red part of the lip, than when it invades the skin surrounding this red part. It is then that it is often seen to progress most rapidly, and hence the pressing indication for the extirpation of the disease when there seated.

Cancer of the lips is not curable by topical or external applications, as cancers occurring on other parts of the body; there is no chance of recovery for the patient, except by the destruction of the evil by caustics or cutting instruments.

Several of the caustics made use of in other regions of the body cannot be applied to the lips. Arsenic, which is used, or rather which has been used so frequently, for the destruction of cancer, might here prove very dangerous, by entering the mouth, and a rapid poisoning be the result. The butter of antimony cannot be used here, as it is liable to an inconvenience of the same nature. These objections do not apply to the caustic potass, to the Vienna and zinc pastes: but in general the

application of caustics in this region (setting aside all that can be said concerning this manner of treatment applied for the destruction of ulcers) is more difficult and more subject to inconvenience than elsewhere: nevertheless, I ought to say that the nitrate of mercury seems to me to possess a real efficacy in some varieties of cancer of the lips: I have used it with success in very superficial cancerous ulcerations situated in this region. By touching these ulcerations with a small brush dipped in this caustic, and renewing this little operation every three, four, or five days, we will often succeed in modifying in a most successful manner, and completely cicatrizing, these ulcerations. I have just cured in this hospital a superficial cancer seated in the nose, by means of the nitrate of mercury: but observe this, I now speak of superficial cancerous ulcerations, for in deeply-seated cancers this caustic, far from being useful, will be without action, or only exasperate the disease.

Cutting instruments are infinitely preferable for the destruction of cancer of the lips: it is the mode which I purpose to employ in the case of our present patient. But we have to discuss the best manner of executing it: there are two ways of practising this extirpation; the V incision, and the semilunar one.

The V incision consists in circumscribing the tumor or cancerous ulceration by a triangular flap, the base of which corresponds to the free border of the lips, and the apex beyond the limits of the disease, and situated in the healthy tissue. The patient is seated on a chair, with his head firmly supported by an assistant, who compresses at the same time the external maxillary arteries, inferior and anterior to the masseter muscle, and presses the cheek towards the median line, whilst the surgeon embraces the portion of the diseased lip between the thumb and indicator of one hand, and with a strong, sharp-cutting straight scissors, forms the triangular flap, taking care to cut well into the healthy tissue. When the two oblique incisions are united, so as to form the V incision, the operation is finished, and the diseased portion removed. The edges of the wound are brought together, and maintained in contact by one or more points of the twisted suture.

This method is equally applicable to the superior as the inferior lip, to the middle portions of these organs as well as their angles; it is the one we must employ when the portion to be taken away is not too considerable; but when we are obliged to remove more than the half of the lip, we must have recourse to another method, namely, the semilunar incision.

The semilunar incision appears more simple than the preceding; in fact, it consists in a semilunar incision which comprehends in its concavity all the diseased portion of either the upper or lower lip. This method, though claimed by many contemporaneous surgeons, is ancient; for it is mentioned by Fabricius ab Aquapendente, Camper, Louis, &c. It may be practised either with the straight or curved scissors. There results from this ablation of tissue a wound, the depth of which is in proportion to the quantity of tissue removed. This method can certainly be performed upon the superior as well as the inferior lip, but it is not often that it is applicable to the lower one, particularly when the cancer extends more transversely than from upwards downwards. When this operation

has been performed, a shocking deformity is the result; which diminishes, however, by degrees, and at length is reduced to almost nothing. The integuments of the chin, and also those of the superior part of the neck, gradually ascend in consequence of the traction exercised by the cicatrix; and this ascent is sometimes carried to such a degree, that we see patients who have lost the entire of the lower lip, in whom the surrounding soft parts have terminated by arriving at the roots of the teeth, and even still higher. We also sometimes see the mucous membrane of the gums unite itself to the wound and reflect itself outwards, so as to resemble by its rosy colour, in some degree, the same portion of the lip which had been removed. Nevertheless, it is not less true that the deformity is never completely disguised, and that it is always more or less sensible; to remedy this, an improvement has been introduced. This improvement we owe to M. Serre of Montpellier; it consists in immediately uniting by suture, the mucous edge placed at the posterior part of the wound with the cutaneous edge of the same. This method has many advantages; the cure is obtained in three or four days, instead of, as formerly, about a month, and the cicatrix is more supple and much less deformed. It is understood, in order to practise this operation, that the mucous membrane be perfectly healthy. When the extent of the cancer renders it necessary to remove the entire lip, and to encroach upon the surrounding parts, the deformity cannot be remedied, except by means of other operations which have been imagined a few years ago, and concerning which I may at some future period have occasion to speak to you.

M. Velpeau performed the operation upon this young man by means of the V incision: two oblique incisions, each about three inches long, and uniting at the apex, circumscribed the whole of the disease, passing it by several lines. Little blood was lost during the operation: the wound was united by two points of the twisted suture, and required no other bandage. The operation was not followed by any bad symptoms.

On Tuesday, 12th November, three days after the operation, M. Velpeau removed the inferior needle, and on the 13th the second. A bandage was applied to prevent disunion of the parts. The union continued perfect: the patient now complained of headache, which was followed by fever and angina tonsillaris: the submaxillary lymphatic glands became painful, (leeches applied behind the angle of the jaws, diet and diluents:) a superficial eschar showed itself at the free border of the inferior lip, but adhesion of the edges of the wound continued. This state of fever and disagreeable feeling continued for several days longer, without determining the cause to which these symptoms could be attributed. Courtillac was dismissed cured on the 29th November. The union of the wound is very firm, and there is very little deformity. 13th December, 1839.

I have insisted, in a lecture which I have already delivered on this subject, on the errors of diagnosis into which we may fall in a case of supposed cancerous ulcers of the lips: I am now enabled to furnish you with a good example of this. I have this very day dismissed a young man, a tailor, who entered the hospital about fifteen days ago, affected with a hard ulcerous tumor, with lancinating pains, which was situated on the middle portion of

the free border of the inferior lip. This ulceration rested upon a thickened base, and almost the whole of the lower lip participated in the engorgement. The ulceration was livid, with everted edges, and covered with scales. To this was added a submaxillary tumor situated in one of the lymphatic glands of this region. Fluctuation was also present in this tumor. At first sight, I thought that the ulceration with which this young man was affected was of a cancerous nature, for nothing could be more similar. The submaxillary tumor was opened, which gave discharge to an ill-natured, sanious, and imperfect pus, which might have still more strengthened the idea I had formed of the dangerous nature of the disease: and the prognosis which we *might* have deduced would have been most annoying, as the disease seemed to have attained such a degree, as to leave no hopes of delivery for this unfortunate individual by means of an operation: for the submaxillary lymphatic tumor in suppuration indicated a general infection for which there was no resource. Well, gentlemen, this disease, so frightful in appearance, disappeared in less than fifteen days. Suspecting in that young man a syphilitic affection, I removed the scales which covered the ulceration by means of emollient cataplasms and oleaginous unctions: I cauterized this ulcer with the nitrate of mercury, employing at the same time mercurial frictions on the inferior lip. In the course of a few days the ulceration had completely changed its aspect, it became clear, of a rose colour, and the seat of suppuration of a good nature. The submaxillary swelling diminished, and its suppuration became better. The wound was a second time cauterized, and now it is almost completely cicatrized, two applications of the nitrate of mercury having sufficed. The submaxillary tumor has almost disappeared, and the opening which I made for the discharge of the pus it contained, is closed. Fifteen or sixteen days were sufficient for the working of this wonderful change.

CASE OF TRANSVERSE WOUND

OF THE

NECK AND LARYNX;

SUCCESSFULLY TREATED BY SUTURE.

BY M. EUGENE BERMOND.

HOUSE SURGEON TO THE HOTEL-DIEU OF BORDEAUX.

(Communicated by Dr. JOHN MAXWELL.)

D. BALU, cook of the ship *Eliza*, forty-eight years of age, was driven to a state of despair by the unpromising aspect of his affairs. On the 8th of July, 1840, he went on board his vessel, and during the whole night felt a constant desire to destroy himself, against which he tried to struggle, but in vain. About four o'clock A. M. he rushed to his trunk, took out one of his razors, and made with it an enormous wound in the neck. Five hours elapsed before any of the crew became acquainted with what had taken place: some one heard a moaning noise, and on entering the berth they found the wretched cook lying on the ground, but he still preserved his consciousness, notwithstanding the immense quantity of blood which had been lost. The surgeon of the vessel regarded the wound as necessarily mortal, and merely placed a piece of sticking plaster over the

cut. The man, however, was carried to the Hôtel Dieu, but did not reach the hospital before five o'clock P. M.

A large wound ran transversely across the hyo-thyroid space, from one carotid artery to the other. The edges of the wound were widely separate, from the ascension of the superior one; the epiglottis and back of the pharynx were intact. The patient was pale, and his pulse was very feeble. On bending the neck forwards he could speak easily enough; but on attempting to swallow a little fluid, the whole of it passed through the wound, with convulsive efforts of the larynx. The first indication in the case was obviously to obliterate the immense gap caused by the separation of the os hyoides from the thyroid cartilage. This I effected in the following manner. Having armed a curved needle with a double ligature, I passed it immediately above the os hyoides, and then through the middle of the thyroid cartilage, from behind forwards: the ligature was now tied, and the os hyoides brought into close contact with the cartilage; this effected, the lips of the wound and the integuments were united by six points of suture, and the whole supported by compresses of lint and bandages. The patient expressed his joy in the warmest terms; he drank freely and without impediment, but as the pulse began to rise, some blood was drawn from the arm: he passed a quiet night.

On the third day the dressings were removed; a few drops of fluid escaped through the wound during deglutition. On the twentieth day the wound was almost completely healed, and on the twenty-fifth the central deep suture was divided and removed. On the thirtieth day the cure was complete; the patient complaining of nothing beyond a slight feeling of impediment in swallowing, and an increased secretion of saliva. He left the hospital on the 30th of August, full of repentance for his rash act, and of gratitude for the attention which he had received.

REMARKS.—One of the circumstances which assist in giving a hideous aspect to wounds of the neck, is that of their occupying the space between the os hyoides and the thyroid cartilage. The membrane which unites these two bodies is less prominent than either of them, because it is attached to the posterior part of the superior edge of the bone, and not to the inferior edge, as anatomists commonly assert. The hyo-thyroid membrane is about fifteen lines in length, and rather cellular than fibrous in structure; it is thicker and shorter towards the middle than at the sides; hence, as Bichat has remarked, when, in the larynx removed from the body, we endeavour to separate the os hyoides as far as possible from the cartilage, the lateral and posterior parts of the bone are much higher than the middle portion, and from this disposition it follows that the base of the tongue, supported as it is on the os hyoides, is capable of rising higher on the sides than at the middle, and thus is formed the species of channel along which the food is conducted into the pharynx.

The membrane is covered by a layer of mucous membrane which receives the superior laryngeal branch of the superior laryngeal artery, and is finally by the skin. Behind, it is from the pharynx by mucous

membrane, and from the epiglottis by a triangular space, in which are found some cellular tissue and epiglottidean gland.

The uses of this membrane are completely subordinate to its position. It completes the anterior wall of the pharynx, fixes the os hyoides, and associates it with the larynx, by combining the motions of both during deglutition and the production of sounds. A distinct synovial membrane exists between the posterior surface of the os hyoides and the upper part of the thyroid cartilage, and this shows, if proofs were wanting, that the two bodies frequently move one on the other.

The anatomical facts which I have just mentioned will assist us in understanding wounds about this part of the body. If the hyo-thyroid membrane be divided transversely, by a wound which penetrates the pharynx, the edges of the wound will be widely separated from each other, for nothing remains to prevent the muscles attached to the lower jaw from drawing up the hyoid bone. This, undoubtedly, constitutes the main danger in wounds of the neck, by leaving an opening for the escape both of food and air, and it seems strange that no surgical writer, up to the present time, has thought of reducing the size of the wound, by bringing the os hyoides and thyroid cartilage directly together. Unless this be done, what advantage do we derive from the means proposed by all writers, and practised by most modern surgeons? We cannot keep the patient with his head constantly bent forward, and when the integuments alone are brought together by means of suture, the latter give way, and allow the escape of fluids, &c., before the wound can cicatrize; in a word, nothing is more difficult than to obtain a cure of wounds, like those we now speak of, under the common method of treatment.

Being convinced of the necessity of bringing the os hyoides and the thyroid cartilage together, I lost no time in applying the idea in practice, and employed the double ligature. The application of the latter was extremely simple and easy of execution, and when the two ends were knotted together, the enormous wound was completely and effectually closed; this mechanical union of the divided parts, moreover, placed them in the conditions most favourable for union by the first intention, and dispensed the patient from the necessity of observing a disagreeable posture.

Finally, the last advantage which attends the method I now propose is, that by bringing together the os hyoides and the cartilage, we obtain a firm support for the soft parts to unite over them, and diminish the chance of the edges of the wound being inverted, as is so often the case.

These few observations will, I trust, induce other surgeons to adopt the method which I have employed with such success in the present case.

CASE OF INJURY OF THE ARM

REQUIRING AMPUTATION AT THE SHOULDER JOINT.

GEORGE GIFFORD, æt. 27, a dark-complexioned man, of sound constitution, was on Thursday, April 25th, admitted into Guy's Hospital with ex-

tensive injury to his right arm. He has always been of temperate habits, very seldom, on account of a natural dislike to it, taking animal food, and never indulging in the use of spirituous liquors. At 6 P.M. of the day on which he was admitted, being engaged in his occupation at the premises of the London Caoutchouc Company at Tottenham, he was pulling a quantity of India rubber into a box, called the masticating box.* The rubber, having been rendered warm by heating, unfortunately adhered to the patient's hand, and both together, the arm up to the axilla following, were drawn into the box. The drawing in of the limb occupied the space of half a minute, but the motion of the machinery, from some cause, was not put an end to until three minutes after the commencement of the accident. During the latter two minutes and a half he was pinned down in the box, and, while in this position, his side was beaten by an iron nut, of about an inch square, connected with the machinery. During the accident he did not lose his powers of sensation or perception. A surgeon who happened to be close at hand, immediately ordered the box to be unscrewed, and thus removed the arm. The patient was laid on the floor, where he remained about a quarter of an hour, and was then carried home, a mile's distance, on a flat board. He was examined at home by Mr. Wollaston, but all hæmorrhage had then ceased. He appeared to have lost altogether about a pint of blood. After the lapse of an hour, he was placed in a fly and brought, attended by Mr. Wollaston, to the hospital, where he arrived at half-past 8 P.M. He had suffered very little pain since the accident, until an hour before his arrival here, when the arm had become very cold, and he was complaining of violent pain throughout its whole length. He walked unassisted from the vehicle into the ward. On examination, nearly all the muscles on the palm of the hand were found to be torn away, the radius and ulna were broken in several places, and the superficial and deep-seated muscles over the fractured portions extensively lacerated. The elbow-joint escaped uninjured. The humerus was fractured in three places. The soft parts about the upper arm were much bruised and torn. On the outer part, nearly opposite to the insertion of the deltoid, were three small wounds, through one of which a small portion of bone protruded; and behind, the tendon of the triceps was exposed. The integuments on the inner wall of the axilla were reddened and contused, and its floor completely torn through, (the machinery having forced the arm upwards, and away from the body,) so that the axillary plexus could be distinctly seen when the arm was abducted. The artery was torn through—both ends, especially the lower one, being considerably retracted—the upper one was felt pulsating on introducing the finger into the wound. There was no fracture within the capsular ligament. The radial artery was torn through, but the ulnar had escaped uninjured. The patient exhibited great pallor of countenance, his pulse was very quick

and feeble, and there was great tendency to sickness.

Mr. Key, under whose care the patient was admitted, happening to be at the time in the hospital, was at once informed of the accident, and having seen the man, advised the instant removal of the limb. The patient having been removed into the theatre, the operation was performed in the following manner:—The subclavian artery was commanded by an assistant. Mr. Key then, having raised in his left hand the mass of the deltoid muscle, thrust a long knife beneath the muscle, commencing at its anterior margin an inch and a half below the acromion process, crossing the position of the capsular ligament, and finally forcing its point out again just within the posterior border of the axilla. He then quickly drew out the knife downwards, forming a rounded and fleshy flap. By another stroke of the knife, the origins of the biceps and triceps, and the insertions of the infra and supra spinatus, were divided, and the joint opened and exposed. The arm was then drawn upwards and across the chest, the blade of the knife brought below the head of the bone, and drawn downwards and outwards between the lips of the wound in the arm-pit. The upper end of the axillary was found to be quite enveloped by its sheath, and hermetically sealed by a coagulum of about half an inch in length; it was, however, tied. Two other arteries were also secured. Having removed various portions of the soft parts supposed to be contused, and paired off the cartilage of the glenoid cavity, the edges of the wound were approximated by means of sutures and adhesive plaster, a bandage applied, and the patient removed to bed. The man vomited considerably during the operation, but did not complain of pain. Very little blood was lost.

Twelve o'clock.—Complains but little of pain. No bleeding. Feels inclined to sleep. Ordered—*R. Pulv. Opii gr. ss. Hydr. Chlor. gr. i. statim.*

Friday, 26, seven o'clock A.M.—Complains of great pain in the stump—has had constant sickness during the night, and in consequence has obtained very little rest. Tongue rather furred; pulse feeble. Ordered *effervesc. mixt. thrice a day.*

One o'clock.—Vomiting still continues. Countenance very anxious. Bowels once relieved since operation. Ordered to discontinue his former medicine, and to take soda water and brandy when required.

Ten o'clock P.M.—Bandage removed from stump—a small quantity of serum escaped. Sickness somewhat abated. Bowels not open to-day. If the pain in the stump continues, he is to make use of the hemlock lotion. Ordered, calomel two grains, opium one grain, at once.

27.—Has passed a restless night, accompanied with a slight tendency to delirium. Pain in stump diminished. Bowels not relieved. Tongue dry, furred. Pulse 126, quick, feeble, and compressible. Ordered, enema of castor oil, lemonade ad libitum.

28.—Has passed a restless night. Bowels well open. Tongue still furred. Pulse 120, feeble. Sickness entirely abated. Warm water dressing applied to the stump.

29.—Much improvement—sensation of hand alone troubles him.

May 2.—Plaster removed to-day, granulations

* The masticating box is a covered trough, through the centre of which runs a steel rod (called the "sharp,") armed with several fine-edged knives projecting from it at right angles. The whole machine is rapidly turned round by steam power. Into this box a quantity of India rubber shreds are put, and are then minutely divided by the projecting knives, while at the same time they are separated from all dirt, stones, &c. After a time these portions cohere and form one mass.

looking very healthy. General health much improved. Appetite good. Bowels open. Discharge copious, healthy.

6.—Is now able to sit up in bed, wound healing very fast; one ligature removed to-day. The last two or three days the integuments on the inner side of the axilla have been inflamed, but appear less so to-day.

9.—The remaining two sutures came away this morning. The patient is able to walk about the ward.

13.—A small abscess has appeared on the spot where the integument was bruised by the iron nut. This was opened, and a slight quantity of pus escaped. The cicatrization of the large wound has been retarded by this circumstance. Tongue furred. Pulse very feeble. There is an erysipelatous blush about the wound, apparently produced by irritation from the adhesive plaster, which has accordingly been almost all removed.

16.—Rather better. Slight discharge of pus from the aperture, but of a thin consistency. Tongue cleaner. Granulations flabby, and inclined to rise. The argent. nitras to be applied.

20.—Discharge from wound much diminished in quantity. Granulations not looking very healthy. Warm water dressing applied to stump.

June 16.—Much improved—the wound entirely healed. The abscess below still discharging.

23.—Abscess not quite healed. The patient, however, is discharged.—Mr. Key thinking that the assistance of country air will speedily effect a complete cure.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, APRIL 10, 1841.

OF the subjects which have long engaged, and still require the attentive consideration of the members of the Medical Profession, no one is possessed of more immediate and practical interest than that of the medical relief of the sick poor. The Bill for the renewal of the Poor Law Commission, now before the House of Commons, contains, as yet, no provisions for the settlement of the many important points which have arisen out of this question; and unless unremitting energy and activity are manifested by the profession at large, we much fear that little or no improvement in the mode of working out the medical department will take place. There seems to be very little disposition on the part of those in authority to listen to the remonstrances, or grant the requirements of the profession upon this subject; and unless a strong case be made out, we doubt whether the collective wisdom of the state will do much to remedy the evils so generally complained of. The real questions for the consideration of the legislature are, first, whether medical relief, of any description,

shall be granted to the sick poor; and, secondly, to what extent such relief shall be allowed. Were we to judge from the acts of the Commissioners, from the general character of their proceedings, and from the tone of their communications with the Boards of Guardians and the district medical officers, we should be inclined to infer that the ultimate intention is to deprive the poor altogether of gratuitous assistance. The giving of alms to the poor man, perishing, it may be, for want, has been directly discouraged by them; and, as far as lay in their power, prohibited. Destitution is, in the eyes of these official individuals, each of whom is in receipt of from 700*l.* to 2,000*l.* a year of public money, regarded as a crime, and to be visited with confinement, imprisonment in cells, deprivation of food, stripes, and other pains and penalties, at the discretion of their subordinates. We cannot then be surprised that these same functionaries should be disposed to throw every impediment in the way of the administration of efficient medical relief to the poor man, who may stand in need of it. As a part of the system of almsgiving, every institution, having for its object the relief of the sick, should at once be closed, and no friendly hand should be extended to alleviate the pain of sickness, or mitigate the pressure of disease, unless it be by the express appointment and under the direct control of the Commissioners. For this extension of the severities of the system, however, the House of Commons was not prepared, and the indignant rebuke of Sir Robert Peel produced a disclaimer of the monstrous doctrine thus advanced by the Poor Law Commission, in the very teeth of those divine precepts which they profess to receive. Almsgiving, therefore, and, consequently, that branch of it which constitutes medical relief, is not as yet to be considered a misdemeanour against the state. The legislature as yet recognises also the principle of affording medical relief to the necessitous poor at the public expense, and the question, therefore, resolves itself into the extent to which this relief is to be afforded. Long experience proves that in order to ensure the efficient performance of public duties, those who are charged with them should be adequately remunerated, and were it otherwise, the state can have no right to expect at the hands of any private individual, that he shall devote himself, at all risks, to the public service, when others, certainly not more deserving, who are placed in office over him, are liberally rewarded for services requiring neither greater skill nor greater expenditure of time and labour. We are decided advocates for the exercise of public charity as well as of private benevolence, and we trust never to see the day when the Medical Profession shall hesitate

to respond to the appeal of the one as well as to the call of the other. But while we glory in the reputation which our professional brethren so justly possess of being ever open to the cry of distress, ever ready, nay anxious, to afford that relief to the destitute sick which their opportunities admit of, we protest against the public and official impositions practised upon this benevolence. We deny the right, and denounce the practice, of the community at large being charitable at the expense of the time and labour of the medical practitioner. The mockery of retaining his services at an annual salary which will scarcely allow of his furnishing the necessary medicines without personal loss, and the injustice of doing so under the threat of introducing a competitor into his immediate neighbourhood, are manifest. These are, however, injuries which in the existing state of things are extensively, shamelessly, and without scruple inflicted upon the profession. But the impolicy of adopting such unjust measures, and the actual loss experienced by the community by persisting in them, are points which of themselves deserve the serious attention of the House of Commons in Committee, before the country shall become again pledged to the support of the Poor Law Commission. The medical practitioners who now accept office under the Poor Law authorities, will, without doubt, to the extent of their abilities and power, discharge the duties assigned to them, but we fear that the ultimate result of the conduct pursued towards them will be to throw the attendance upon the poor into the hands of an inferior order altogether. Already indeed are many of those gentlemen who, for their talents, standing, and general character, are deservedly esteemed, withdrawing from all competition. The sacrifice of their time and talents for a mere nominal remuneration, is seen to be in itself an evil tending to lower them in general estimation, and to lessen their influence with those of their own rank in society. The arbitrary and supercilious manner in which they have been treated, also, has the same tendency, and the degradation attaching to the mode of appointment, and, in short, to the whole system of procedure, is such as men of independent and honourable feelings cannot long submit to. We repeat, then, that the ultimate result of the conduct pursued under the Poor Law system towards the union medical officers, is such as must ultimately throw the attendance of the poor into the hands of a class of practitioners inferior in attainments and general respectability, and who will consequently neither possess the inclination nor the power to do justice to those placed under their care. Their primary object must be, not so much to alleviate the sufferings of the

sick, as to extract a miserable subsistence out of the scanty sum allotted to them for their services. Medicines of inferior quality or inefficient power will be procured at a cheap rate, and the necessary remedial means often withheld, on account of the absolute inability of the practitioner to afford to supply them. Such has already been the case in several instances, where an unjust attempt at lowering the salaries below a reasonable amount had forced the established practitioner of the neighbourhood to withdraw from competition. Such will be the case more extensively, if the same system be continued. The want of remuneration adequate to the services rendered, the miserable economy attempted in extending the size of the districts to limits beyond what the most active and unwearied assiduity can possibly attend to, the obnoxious and degrading mode of appointment, the use, towards gentlemen of education and intelligence, of language the tone of which has met with rebuke publicly in the House of Commons from one of its most influential members, cannot fail in the end to produce the most injurious effects.

Who, or what are the Assistant Poor Law Commissioners, or any other of the satellites of the despotic board at Somerset House, that they should arrogate to themselves such unwarrantable pretensions, that they should presume to impute sinister motives to gentlemen of character belonging to an honourable profession, that they should be permitted unchecked to add insult to injury, and persist in their system of reducing the union medical officers to a level with, or below the level of their lowest subordinates? The treatment of the medical practitioners, however, bad as it is, is not the worst feature in the system pursued by the Poor Law authorities towards the sick poor. The medical officers are, indeed, most uncourtously and unceremoniously treated, but the sufferer from disease is subjected to usage still more iniquitous. His complaints are met with cold indifference, often neglected until too late for the useful application of remedial measures. He is compelled to make his application for relief to a person not unfrequently entirely unknown to him or any of his neighbours, whose only qualification, indeed, for the charge to which he is appointed, has been the low price at which he estimates his time and services. The residence of this officer is sometimes situated at such a distance from the habitations of the poor of the widely-extended district as to render it often impossible, when assistance is most needed, that it should be obtained in time to be of any avail, or that such attention as an urgent case always requires should be regularly given. Should the sick person, however, become an inmate of the Union Infirmary, and receive

regular attendance at the hands of a medical officer of known talent and skill, all the measures recommended and employed for his benefit are liable to be rendered nugatory because the Poor Law authorities limit the power of the medical officer in ordering such diet as may be fitting for the case or necessary to recovery. The hardship presses severely, indeed, upon the poor man, and those who have an interest in his life and health; but the same system of studied insult to the Medical Professor is apparent here also. If the medical officer be a man of integrity, and possessed of sound professional acquirements, he has a right to the confidence of the Guardians in his intercourse with, and treatment of, the sick committed to his care, and ought not to be interfered with in the exercise of duties entrusted to him by persons, most of whom are his inferiors in general education, and not one of whom can be competent to form a judgment in the case referred to. If otherwise,—if, as certain noble lords and honourable gentlemen profess to think, the medical officer were capable of the wish to excite dissatisfaction throughout the country, or to flatter the worst passions and prejudices of the public,—if he were really capable of abusing the trust reposed in him, or of converting the power which he possesses to purposes of mischief, he would be unworthy of all confidence, and ought not to be entrusted with the responsible office of medical adviser to any public institution. We are quite willing to allow the mischievous tendency of the line of conduct hypothetically put by the Lord Howick, and we are well assured that few are, from their own personal experience, better able to estimate it; but it is scarcely necessary for us to disclaim all such partizanship on the part of medical practitioners in the discharge of their professional duties. No medical man of character, in his intercourse with the sick, (and if any other be appointed to these parochial offices, with the Guardians must rest the blame,) would have regard to any consideration but the actual condition and requirements of the patient. To direct the supply of these requirements is the province of the medical officer, and to interfere with him in the discharge of this duty is tantamount to a withdrawal of confidence, releases him from his responsibility, and inflicts a direct injury upon the patient. The only remedy, as it appears to us, in the event of such improper interference, is either an immediate resignation on the part of the practitioner so insulted, or a protest to the Commissioners asserting his release from all personal responsibility. But the medical officers ought not to be subjected to this alternative, and we trust that provisions will be introduced into the bill, before it pass into

a law, emancipating them from the control of interested and incompetent persons, and placing the whole medical department under a distinct and properly-constituted authority.

MEDICAL REFORM.

LETTER FROM SIR CHARLES BELL TO THE MEMBERS FOR EDINBURGH.

SIR C. BELL has recently added himself to the list of writers on Medical Reform, but whether he be in favour of reform, or opposed to all attempts at ameliorating the condition and prospects of the Medical Profession, we confess that a perusal of his pamphlet has not enabled us to decide. Sir Charles Bell seems to be of the “*medio tutissimus*” school, or rather like a college friend of ours, who when asked at an university examination whether the earth turned round the sun, or the sun round the earth, gravely answered, after considerable reflection, “Sometimes one, sir, and sometimes the other.” Such is the complexion of Sir C. Bell’s ideas on medical reform; by turns a railer against the abuses of the corporations, and against those who would presume to correct abuses which he acknowledges to be flagrant. Sir Charles has not, it would appear, derived much information from the various publications on medical reform that have appeared during the last six months in “*THE PROVINCIAL*” and contemporary journals. Most of these possess, at least, the merit of being clear and explicit; the advocates of reform have stated their views with candour; the opponents of change have put forth their arguments in a decided, though sometimes crafty manner: it remained for the Professor of Surgery in the Edinburgh University to envelope the question in a mist of his own making, which we do not, now, feel inclined to dispel.

But, previously to giving some account of Sir C. Bell’s pamphlet, we would offer a word or two on the “history of articles on medical reform.” It has hitherto been supposed that the article in the “*Quarterly Review*,” attributed to the pen of Sir B. Brodie, was the first which awakened the attention of non-professional persons to this important subject.

In the “*British and Foreign Review*” for July 1840 will be found a very excellent article by Mr. William Simpson, (we believe,) entitled, “*Medical Reform*,” in which the different bearings of the question are carefully examined, and which is as superior in correctness of views to the production of Sir B. Brodie, as it is anterior in date.

But to return to Sir Charles Bell—Sir Charles commences with an exhortation to the members for Edinburgh “to arm themselves against the

clamour which has arisen under the banner of Medical Reform." He then advocates the necessity of grades in the following paragraph.

"Pray consider that there must be grades in our profession, as necessarily as in society. (One might have hoped they had outlived that folly of equality.) There are as many gradations between the extremes of the profession as there are between 'him who is clothed in silk, and weareth a crown, and he who is clad in simple linen, and sitteth beneath in the earth.' But you will balance the evidence; for they who are depressed will repine at those who ride in chariots; and he who is a potentate among his rich patients, will persuade you that he is the very ornament of the capital of the pillar; although with every hour lucratively engaged, that he has also done more than dip into the literature, he has carried the science of the profession with him,—nay, he has advanced it. He would grasp all, both profit and honour. There is no reason at all why such a man should not be at the head of his profession; but he must take the advice of Hippocrates to the Herbalist Crativas, 'that, among other herbs, he should cut up that weed of covetousness by the roots, that there be no remainder left.' This is the class of men who come forward upon your eye in London: but are a small portion only of the working part of our profession. And it is to form and to protect the larger and more useful portion, to which a benevolent Government ought to direct its attention."

Having demonstrated in this very sweeping manner the necessity and expediency of "grades," Sir C. Bell flies off to the appointment of certain professors in Edinburgh, and shows that, "in addition to the classes taught by Monro, Cullen, Black, Hope, Home, and Gregory, there have been wedged in between them professors to the total amount of fourteen, and that, of late years, eleven hundred guineas have been transferred annually from the pockets of poor students to those of government officers."

This, we suppose, might form an argument in favour of Medical Reform, although Sir C. Bell does not advance it with that object: the sun is now turning round the earth.

The Colleges of Surgeons next attract the attention and animadversion of Sir C. Bell.

"The members of these bodies believe that they are in the way of improvement, and that they answer the call of the profession, when they increase the number of classes, and the subjects to be studied by their candidates, until it becomes an intolerable oppression. They believe they are doing right; yet, with all such bodies, there is a marvellous aptitude to pass resolutions which shall make it more expensive and more difficult for those who are stepping up to the same bench with themselves.

"In their corporate capacities, they have been indifferent to the moral influence of the profession.

"The College of Surgeons has known that the young men presenting themselves as candidates

for diploma have been both imperfectly and improperly educated. They have known that their teachers were not Surgeons, and, as Anatomists, knew not its application to surgery,—that the young men were crammed with words, and were not taught by such prelections as are necessary to improve the mind, and form the medical character. They have known that their teachers lived irregular lives; that they were men whom they refused admission into the society of teachers, and with whom they did not associate.

"Such was the condition of things during my thirty years' experience of teaching in London. Hundreds of young men entered the profession with the worst examples before them. The temptation of the teacher of anatomy to low and improper conduct, and in which he engages the students, requires a strict *surveillance*."

The University of London, with its offspring, University College and King's College, next falls under the displeasure of Sir C. Bell, who affirms that its institution "has confused all things, and that confusion will be worse confounded by the enactment of the bills now before Parliament."

Upon the College of Physicians, their own acts of exclusion have recoiled. The medical bills have been, according to Sir C. Bell, altogether framed upon a wrong principle.

"It is inferred that examination is a test of proficiency. Examination is a part of academical discipline; taken by itself, it is an instrument of cruelty and injustice."

"It is proposed in these Bills to institute three new bodies of Examiners, purged of all malice like an English jury; in other words, ignorant altogether of the young gentlemen presented to them. Really this is like an argument used at the hustings,—fine, just, and benevolent to the lowest comprehension. That it should be a suggestion of educated men to a body like the British Parliament, throws one into amazement."

Finally, Sir C. Bell embraces his views of Medical Reform in the three following propositions.

"I. To procure for the country, medical men duly educated, to facilitate their education, and to take care that it is not loaded with unnecessary expense. This is the first duty of every government when it interferes to control the profession. *It is due to the people.*

"When the candidate has received his diploma evincing his fitness for the common duties of the profession: If destined for the Army, let him, during the first three months of receiving pay, be sent to a Government Hospital to be further instructed by the head of the department. If destined for the Navy, send him to Haslar for the same purpose. If for the East Indies, let him attend to be further instructed in the diseases of tropical climates, and join Botany and Natural History to his professional acquirements. To force all this upon the common practitioner is a great hardship.

"II. It ought to be another great object, and such as we should expect from a society of educated gentlemen, that they should provide for a higher status of education. That men should

be induced to study the sciences connected with the Medical Profession, and hold places of honour, that they may be ready to afford assistance to those who are desirous of rising above the common order, either from having patrimony with which to commence their studies, or, from ambition, having attained the means, by the practice of their profession.

"III. That there shall be no envious distinctions,—that genius and application may enable even the poorest to gain the high places in our profession.

"Great confusion has arisen in the system of education in this country, from the extended privileges of the corporate bodies, and from Government giving them the title of Colleges. By this means their privileges, originally local, have become extensive; they examine, and give diplomas. Without aiding in the slightest degree in the education of the pupils, they exact their monies, accumulate riches, build palaces, buy museums, and have abundance; whilst the Universities, the working bodies, are impoverished, and left deficient in the necessary apparatus for teaching: collections, and museums.

"These new examining bodies or parliaments, proposed in the bills before the House, is a further extension of this mischief. They are attended with exactions from the pupils, and deprive the Universities of the funds which ought to go to the support of their institutions. If the number of classes should be diminished, the expense to the pupil very considerably curtailed, but, at the same time, all which they pay, be given to the institutions where they receive their education, justice would be done to all parties."

ACADEMY OF SCIENCES.

Paris, March 22.

IDENTITY OF FIBRIN AND ALBUMEN.

M. DENIS communicated a letter which he had just received from M. Liebig of Giessen, confirmatory of the results of his experiments relative to the identity of fibrin and albumen.

M. Liebig had been enabled to dissolve completely pure fibrin in a saturated solution of nitre, at a temperature of 50 to 56 degrees. The fibrin at first assumes a gelatinous appearance, and then is dissolved, leaving a few flocci merely. The filtered fluid possesses all the properties of albumen, and its composition is identical with that of common albumen.

M. Liebig has also precipitated albumen, under the form of globules, by adding a sufficient quantity of water to serum neutralized with an acid, and he has also obtained fibrin from the blood-globules, by the process of M. Denis. Finally, by adding a little caustic potass to albumen, M. Liebig has precipitated it with alcohol, under the form of casein.

CURE OF MYOPIA, BY DIVISION OF THE MUSCLES OF THE EYE.

M. Jules Guérin addressed to the Academy some observations on the cause and surgical treatment of myopia. According to M. Guérin, there are two species of myopia, as there are two forms of

strabismus; a mechanical and an optical myopia. The mechanical form depends on primitive shortness, or retraction of some two, three, or four of the recti muscles together, and in an equal degree. It often accompanies strabismus, and then depends on the fact, that only one of the muscles is affected, or some one in a greater degree than the rest. The characters of this species of myopia are furnished by the form of the globe of the eye, and by its movements. The anterior half of the globe is conical, and the sides are flattened in the direction of the shortened muscle; the movements of both eyes are limited according to the number of muscles contracted, and their degree of shortening.

The treatment of mechanical myopia consists in dividing the shortened muscles. M. Guérin has performed this operation on several occasions with success, both in cases of simple myopia, and in those complicated with strabismus. One of the most remarkable was a man, fifty years of age, affected with slight divergent strabismus, who had been dismissed from the army thirty years before, on account of his shortness of sight. He could read print with glasses No. 3; on the third day after the operation he could read newspaper print without any glasses at all. M. Guérin also mentions the case of a young man, whose mother and grandmother were short-sighted; before the operation he was unable to distinguish large characters at more than four inches and a half; but with spectacles No. 7 he read them freely. Three days after the division of the internal and external recti muscles in both eyes, he began to read without glasses the same print, and could distinguish objects at a distance of ten yards, which before he could not even see. On the ninth day after the operation he could read common print at a distance of eighteen inches, and large Roman capitals at a distance of three feet, but they seem to him smaller than before the operation. He can distinguish large objects clearly enough at a distance of a hundred yards, while the same objects become invisible with glasses No. 7 or 13.

A knowledge of the immediate cause of mechanical myopia tends to prove that the eye adapts itself for the vision of close or distant objects, by contraction of the recti muscles; besides, this is proved by direct experiment. M. Guérin has submitted to the inspection of M. Arago, a young man, 28 years of age, in whom the advance and retreat of the globe of the eye, corresponding to short and long vision, were quite evident without the assistance of any instrument. Finally, from the preceding facts M. Guérin concludes that the lens does not undergo any change of form in long or short vision, as many writers assert, but merely changes its relations of distance to the retina and transparent cornea.*

TREATMENT OF MYOPIA BY DIVISION OF THE INFERIOR OBLIQUE MUSCLE.

M. Bonnet of Lyons has also conceived and executed the idea of treating myopia by division of one of the muscles of the eye. His first operation was performed on the 14th of February 1841. M. Bonnet, however, attributes the defect of

* In connexion with this interesting subject, we beg to direct attention to the communication of Mr. Adams in our last number.—Ed.

vision to contraction of the oblique muscles, and not of the recti, as M. Guérin does. In one case, that of a medical student, 22 years of age, M. Bonnet divided both inferior oblique muscles with the best effects; in two other cases of simple myopia, which had existed from infancy, the improvement was great, but a complete cure did not ensue. Finally, in two cases where myopia was complicated with some amaurotic symptoms, such as "sparks" in the eyes, fixed look, &c., no benefit whatever was obtained; one case, indeed, seemed to have been much relieved during two days, but afterwards relapsed to its former state.

TREATMENT OF STUTTERING BY DIVISION OF THE GENIO-GLOSSI MUSCLES.

M. Bonnet has also tried the effects of this operation on five patients; the three first were relieved; the two last were *immediately* and *perfectly* cured, although affected with stammering in the very highest degree. M. Bonnet divides the genio-glossi muscles by a subcutaneous incision beneath the skin, and not by cutting the mucous membrane near the frænum linguæ, as practised by M. Amussat, Mr. Lucas, and other surgeons. A very small incision is made on the median line, about an inch or an inch and a half below the chin; through this is introduced a blunt-pointed tenotome, which is directed from below upwards, and a little forwards. The blade is directed towards the jaw-bone, and when the point has reached the mucous lining of the mouth, (a fact easily determined by the finger introduced into the mouth,) the process from which the muscles arise is felt for; the blade of the instrument is now carried to the right and left, against the upper part of the inner surface of the jaw, and in this way the origins of the genio-glossi muscles are divided, while the genio-hyoid muscles are avoided. By this method we divide the aponeurotic attachments of the muscles; avoid the cellular layer which is close to them, together with the sublingual arteries, and the wound made is so insignificant, that the patient can speak and walk about his business on the following day. The first patient who was completely cured, 14 years of age, was afflicted with a very high degree of impediment. While M. Bonnet was withdrawing the instrument, he exclaimed, "Thank you, Sir," with the utmost precision, and on the following day presented no trace whatever of the defect. In another case, the results were equally fortunate, but, in the three first patients operated on, the same success did not attend division of the genio-glossi muscles; the impediment of speech was more or less relieved, but not completely cured. M. Bonnet inquires whence this difference of result, but is unable to account for it.

ACADEMY OF MEDICINE.

MARCH 23.

RESECTION OF THE ELBOW JOINT.

Between the 20th of July 1839, and November 1840, M. Roux has performed this operation thrice with success. The total of resections of the elbow joint which he has performed since

the year 1812 is eleven, and of these only three have terminated fatally. In all cases of white swelling, where the disease is confined to the joint, or does not extend far from it, M. Roux prefers excision to amputation. He now presented two patients, one of them a young man seventeen years of age, on whom he had operated in July 1840; he is now perfectly well: the second patient is a man fifty years of age; he was operated on in November last; a few fistulous openings still remain. The first patient can bend and extend his arm imperfectly. In all cases the hand can be moved freely, but in the two last the supination and pronation cannot be executed. M. Roux makes an external vertical incision, and a transverse one; and thinks that the period of cure is abridged by this process.

HISTORY OF THE LAST ILLNESS OF SIR ASTLEY P. COOPER, BART.,

AND EXAMINATION OF THE BODY AFTER DEATH.

FOR many months previous to his last illness, Sir Astley Cooper had occasionally experienced great dyspnoea, upon the slightest exertion: and it had been observed by his friends, that the peculiarity of his complexion bespoke some serious impediment to the circulation. It was not, however, till about six weeks before his death that he found difficulty in assuming the recumbent posture; and about that time he began to pass the greater part of his nights in the arm-chair, rather than attempt to lie down. He still continued to see a few patients during the day, both at home and at their own houses. He now became the subject of frequent cough, which was immediately brought on, if he attempted to recline. The gout, of which he had for several years experienced periodical attacks, showed itself imperfectly in the fore-finger of the left hand; and his legs began to swell, owing to the depending position in which they constantly remained.

During all this time he refused medical aid; and it was not till the 22d of January that he consented to see any one, to whom he might state his symptoms. At the time he was first visited, he was sitting in his chair, with his body inclined forward, and his chin nearly resting on his chest; the pulse accelerated; not the slightest *bruit* nor abnormal sound in the heart; though the beat was extensive, and heard quite to the right side of the chest. The lungs afforded considerable bronchial rattle, but were neither consolidated nor compressed, and filled both cavities of the chest.

Although remedies appeared more than once to produce a temporary remission of his symptoms, and a further attack of gout in one foot seemed to afford some relief to the chest, yet, upon the whole, the disease advanced, and was attended by frightful fits of dyspnoea, during which his face was purple and his mind confused; and it was in one of these paroxysms that he died, on the morning of the 12th of February.

Shortly before his death, Sir Astley Cooper expressed a wish that the appearances which should be presented on the inspection of his body might be recorded in the Guy's Hospital Reports. He had particularly alluded to four points, the investi-

gation of which he thought desirable;—a cured oblique inguinal hernia; a cured umbilical hernia; some suspected indications of phthisis in his youth; and an inability to sleep whilst lying on his left side.

EXAMINATION OF THE BODY OF SIR ASTLEY COOPER, BART.

The weather was warm and damp: there were slight cadaverous indications, from gravitation towards the posterior part of the corpse: the face and anterior surface of the body exsanguine: there was general and extensive cedema of the lower extremities; but no evidence of serous infiltration in the arms, nor in any other part of the surface of the body.

The head was not examined.

A globular projection, about the size of a large nut, was found at the umbilicus; which receded on pressure, leaving a well-defined rounded aperture in the linea alba, capable of admitting the end of the little finger. This protrusion consisted of a few congregated lobes of fat placed immediately behind the umbilicus, between it and the peritoneum; the free surface of which was corrugated, and presented a puckered appearance, most probably inflammatory, and the result of the artificial curative means which had been employed for a long period during life.*

The anterior, thoracic, and abdominal parietes were covered with a layer of fat, about an inch in thickness, soft and oleaginous. The muscular tissue exposed during the inspection was pale, soft, and flabby: indeed, the latter expression is applicable to nearly all the tissues. No gaseous or fluid effusion was found in the cavity of the peritoneum: the greater omentum, loaded with adipose matter, was contracted, and did not extend downwards more than two inches from the transverse colon. Some very old membranous adhesions existed between the right angle of the colon and the gall-bladder: cadaveric transudation of bile from this viscus had slightly tinged the surrounding parts.

The viscera occupied their natural positions; excepting the cæcum, which was completely invested by the peritoneum, and hence less fixed than usual.

The liver healthy in form: some parts of its surface were slightly contracted and uneven; and sections of it presented hepatic venous congestion, approaching what is termed a "nutmeg appearance."

The gall-bladder was small; and contained a moderate quantity of healthy bile, which, upon gentle pressure, passed readily into the duodenum.

The spleen was rather larger than natural, its capsule a little opaque, and the interior of the organ very firm; a section presenting a smooth solid surface of a purplish grey colour.

The stomach was large, and distended with gas; the cardiac extremity stained brown by cadaveric transudation, or the action of the gastric fluid upon the blood: its tissues appeared quite healthy.

The small intestines presented nothing abnormal: nor was there any thing remarkable in the large intestines, excepting the dilated condi-

tion of the cæcum, the parietes of which were thin; its mucous membrane congested.

The pancreas was healthy.

The kidneys were surrounded by a considerable quantity of adipose tissue, remarkably dense, and very firmly adherent to the fibrous capsule of the gland. Both kidneys were much congested with blood, rather larger than natural, their surfaces mottled, and slightly granular. These morbid conditions were most evident at the lower part of the left kidney; less advanced, but more generally diffused, in the right; and on the anterior surface of the latter, near its convex edge, were found two small cysts, containing a straw-coloured fluid.

The supra-renal capsules were healthy.

The urinary bladder was healthy and contracted, and contained about two drachms of whitish turbid urine.

The internal abdominal ring, on the left side, was rendered distinct by a tubular extension of the peritoneum for about an inch into the inguinal canal.

A depression existed in a corresponding situation on the right side, the bottom of which was firm, irregular, and corrugated; and upon very careful examination, a minute serous canal, not more than a line in breadth when opened, was traced, extending from it, along the spermatic cord, into the cavity of the tunica vaginalis, being the remains of a congenital inguinal hernia.*

Upon raising the sternum and cartilages of the ribs, both lungs were brought into view; and retained their expanded condition, overlapping the pericardium, and manifesting no disposition to collapse. No pleuritic adhesions existed on either side of the chest; nor was there any effusion, except into the right pleural cavity, which contained about three ounces of sanguinolent rather turbid serum.

A little recent pleuritis was found on the middle lobe of the right lung, rendering it slightly adherent, by plastic effusion, to the adjoining lobes, to a small extent. Both lungs presented general vesicular emphysema to a very great degree, and their edges were more rounded than natural.

The larynx was not examined.

The lining membrane of the trachea and larger bronchi was smooth, but of a dark purple hue, from congestion in the minute blood-vessels: the same appearances extended throughout the bronchial ramifications, the smaller of which were filled with a very tenacious puriform mucus; and many of them were observed much dilated. Both lungs were extremely congested with dark blood, especially in and near the central portions of their lobes. At the superior and posterior part of the right lung was a small depressed and somewhat contracted surface, about the extent of a sixpence; a section of which exposed a calcareous mass, very uneven upon its surface, and about equal to the size of a small pea: it was placed about three lines distant from the pleura.

When the pericardium was opened, the heart was seen, very large, and distended; and about two ounces of rather dark or brown-coloured slightly turbid serum occupied the posterior part of the cavity.

The right auricle and ventricle filled with very dark-coloured imperfectly-coagulated blood. The

* Sir Astley wore a piece of cork adapted to the umbilicus, and maintained in its place by straps of adhesive plaster, during many years, and until his fatal illness.

* Sir Astley Cooper wore a truss on the right inguinal canal from the age of 19 to 35.

auriculo-ventricular valves sound. Through one of the pulmonary valves, near its angle of union with an adjoining valve, was a perforation nearly the size of a small goose-quill. A tolerably firm fibrinous coagulum was found in the pulmonary artery and its branches, extending, by minute prolongations, to the fifth divisions: these were made evident, by withdrawing them in a continuous mass with the forceps.

The left auricle and ventricle were occupied by a large quantity of black grumous half-liquid blood. A large portion of the mitral valve opaque, and a little thickened; otherwise healthy. The aortic valves thickened, and rather rigid at their attached margins; whilst the free margins presented a remarkably healthy appearance for their age.

The left ventricle was much dilated; its apex much broader, and more prolonged than natural: the parietes somewhat hypertrophied; and the muscular fibres of the whole organ were pale, flabby, and weak.

The aorta, which was small and narrow, pursued its usual course, but gave off the left vertebral artery between the left common carotid and left subclavian. The entrance to the arteria innominata was contracted, and slightly irregular.

Many small irregular yellowish opaque patches were seen under the lining membrane of the thoracic aorta and the ascending portion of the left subclavian artery. In most of the parts so affected, the internal membrane was much softened, breaking down under slight pressure: at three or four points it was destroyed to a small extent, admitting a thin layer of dark matter, probably altered blood, separating it in a slight degree from the subjacent tissue: this latter state was noticed near the origin of the arteria innominata and the commencement of the descending aorta. The whole length of the abdominal aorta was full of black grumous blood; its parietes thickened; the lining membrane opaque, and raised by the sub-deposition of hard, almost bony matter.

Guy's Hospital Reports, April, 1841.

CONFERENCE ON MEDICAL REFORM.

Second Meeting of the Delegates, Thursday, February 4, 1841.

Dr. MACARTNEY, F.R.S., in the chair.

Present—*Provincial Association*, Dr. Macartney, Dr. Forbes, Mr. Ceely, Dr. Cowan, Mr. Wickham, Dr. Hennis Green.

British Medical Association, Dr. Webster, Mr. Davidson, Mr. Evans, Dr. M. Hall, Dr. R. Dundas Thomson.

North of England, Mr. Carter.

Cornwall Association, Mr. Grainger.

The minutes of the preceding meeting were read.

A discussion took place as to the publication of the proceedings.

Dr. Forbes proposed, and Dr. Webster seconded, a motion, that the proceedings should not be published from day to day, but that, at their termination, a publishing committee should be formed, and through their agency a digest should be printed and published; but that, in the interim, the conference should have a discretionary power

to publish any part of their proceedings, if such a course should be deemed requisite. The motion was put from the chair, and carried unanimously.

Dr. Webster proposed that each section of delegates should explain the powers entrusted to them.

On behalf of the delegates from the Provincial Association, Dr. Forbes stated that the central council had forwarded to their delegates resolutions to the following effect:—

1. That in any new arrangements existing corporate bodies should be duly respected.

2. That neither the bill of Mr. Warburton nor that of Mr. Hawes was satisfactory to the council.

Dr. Cowan maintained that a general medical faculty would be ruinous to existing institutions; and in opposing its formation, he thought he was only acting in conformity with the resolutions of the central council of the Provincial Association.

Dr. Forbes could not see anything inconsistent, with all proper respect for the present medical corporations, in the establishment of a national faculty or incorporation of the profession.

Dr. Macartney was of opinion, that the respect which should be shown to existing corporate bodies should not be allowed to compromise the public interests.

Mr. Grainger inquired if the provincial delegates were at liberty to support the establishment of a faculty, if it were found that such an institution were incompatible with the continuance of existing corporate bodies.

Mr. Carter, as a member of the Provincial Association, could perceive nothing in the resolutions of the central council which was at variance with the report of the medical reform committee of the same association. That report insisted on the incorporation of the profession, at the same time that it expressed a desire that all due consideration should be shown to existing interests and bodies. The report was unanimously adopted; and its author, Dr. Barlow, was the individual who proposed that power should be given to the central council to take such steps as they might deem expedient for promoting medical reform until the next general meeting of the association: a motion seconded by Mr. Carter.

Mr. Ceely was of opinion that the instructions he had received were by no means inimical to the incorporation of the profession into a faculty.

Mr. Wickham could not see clearly how such an institution was to be established, without divesting the present corporations of their authority and their pecuniary resources. He should like to hear the subsequent heads of the Bill read before forming an opinion.

Mr. Davidson asked, if the provincial delegates represented the association, or the central council only.

Dr. Macartney replied, that they were appointed by and were the representatives of the council. He was of opinion, that if the officers of the present corporate bodies were hereafter to be elected by the members thereof, that a general council or governing board might be composed of a certain number of those officers chosen from and by the councils of their respective corporations.

Dr. Webster read a portion of the report of the reform committee of the Provincial Association adopted at Southampton last year, wherein the establishment of a faculty was distinctly recog-

nized and advocated. He also read extracts from a letter addressed to him by Dr. Barlow relative to the same point.

Dr. Forbes was of opinion that the time had not arrived for considering the privileges of the corporations in connexion with a new system of medical government.

Mr. Carter thought that such discussion should be deferred until the 5th clause of Dr. Webster's Bill, relating to the establishment of a general medical senate, was taken into consideration.

Mr. Wickham had no objection to pass over the first clause.

Dr. Cowan thought that the whole Bill should be read, that members of the conference might see the connexion of one part of it with another. This being assented to, the secretary read the Bill.

Mr. Grainger stated that he felt himself bound, not less by duty than by inclination, to act in conformity with the principles of the Cornwall Medical Association, which are as follow:—

"That all legally-qualified practitioners shall form a faculty of medicine, who shall elect a senate for each capital of the United Kingdom; that these senates should be subject to the same laws and regulations, and shall form by-laws for the government of and protection of the faculty. That the members of the existing medical corporations shall be invited to take part in the formation of the first senate. That all candidates for degrees in medicine shall be publicly examined by a board elected as the senate shall suggest. That a high medical qualification shall be demanded from candidates, who shall receive equal rights, titles, and privileges; and that a register shall be kept of the names of the members of the faculty, and that no one whose name does not appear in the register shall be entitled to practise. That no member shall sell drugs, or compound medicines, unless prescribed by himself, or others in consultation with him, and for his own patients, except by special license."

Dr. Webster said, that the delegates of the British Association were left at liberty to use their discretion, so long as they kept in view the principles which had been invariably upheld by that body.

Mr. Carter made a similar statement relative to the North of England Medical Association.

Dr. Forbes suggested that it would expedite the business of the conference if a few general principles were, in the first place, agreed upon by the delegates.—This suggestion was acquiesced in.

Mr. Grainger accordingly proposed,

1. *That the representative system of government be considered by this conference as an essential principle of medical reform.*

Mr. Evans seconded the motion.

Mr. Wickham thought that if this principle were acted upon, it would require to be controlled by many checks. He could by no means see the necessity for its adoption.

Mr. Davidson observed, that the provincial delegates were bound to support the principle by the recorded sentiments of their parent body.

A discussion now took place as to the mode of taking the sense of the meetings on the various topics which should be brought before them, and it was resolved unanimously,—That when a very general feeling should prevail in favour of a given

opinion, those who might not acquiesce in it should enter a written protest against its adoption.

Dr. Cowan and Mr. Wickham desired that the following protest should be recorded on their behalf:—

We agree that medical reform is requisite, and that the representative principle is desirable, if it can be found to be practicable, but we do not regard it as an *essential* feature of reform.

The other delegates were unanimously in favour of Mr. Grainger's motion, which was accordingly declared to embody the opinion of the conference.

Dr. Green read a letter from Mr. Crosse of Norwich, expressing the regret of that gentleman that he could not be present in his capacity of a delegate. Mr. Crosse observes,

"I humbly conceive that no change can be satisfactory, unless it goes to the extent of making medical education and legal qualification to practise uniform throughout the empire, with liberty to reside in any part of it. Moreover, I deem it absolutely essential that there should be an annual registration of all gentlemen legally authorized to practise, specifying residence and grounds of qualification. The above general principles being kept in view, we should respect existing institutions to all the extent practicable; but I am an enemy to all partial patchwork, unsystematic legislation, and to the maintenance of privileged corporations for local and individual purposes."

2. Dr. Forbes proposed, "*That, in the opinion of this conference, there should be an uniform test of qualification, and equal privileges for all persons who shall hereafter be licensed to practise medicine in the British dominions.*"

The motion was seconded by Dr. Marshall Hall.

Dr. Macartney thought an examination was no proper test of qualification. He contended there should be one standard of education for all practitioners: he would have no insufficiently educated medical men.—The learned gentleman then read an extract from a paper written by himself, wherein this principle was advocated.

Dr. Cowan suggested that the word *minimum* should be substituted for *uniform*.

Mr. Evans objected to the term *minimum*; it would tend to produce an erroneous impression, that the qualification must be of a limited and insufficient character.

Dr. Forbes could see no objection to both words being employed. When an uniform qualification was spoken of as a passport to medical practice, it did not follow that a still greater amount of knowledge might not be acquired, that the medical studies should not be prolonged, or that degrees in medicine or surgery should not be conferred on those who should prove, on a subsequent examination, that they were entitled to such honorary distinctions.

Dr. Webster maintained that the general practitioner received the highest medical education of any grade in the profession. He did not approve of one class of practitioners being provided for the rich, and another for the poor. The latter were more in need of well-educated medical attendants than the former. The poor man had, for the most part, no latitude of choice; but the rich could call into aid a plurality of opinions.

Dr. Cowan was strongly in favour of two grades. It was most desirable that encouragement should

be given for some members of the profession to devote themselves to learning and to scientific researches; whilst others were engaged in those active duties which would allow a comparatively imperfect pursuit of other objects than those of a practical nature.

Mr. Wickham was also an advocate for two grades.

Mr. Carter thought that this discussion was irregular; the question related to the qualifications of *licentiates* in medicine. The subject of grades would come under discussion at another stage of the proceedings—equal qualification of practitioners ought to be accompanied with equal privileges, and the abolition of exclusive rights of practising in particular localities. The Scotch licentiate should be at liberty to practise in England, and *vice versa*.

Dr. Cowan denied that equal privileges should be enjoyed by all practitioners, if more than one grade were to exist in the profession.

Dr. Forbes explained, that the higher grade would be an honorary distinction, but that it would not confer additional privileges, at least not legal ones.

Mr. Carter remarked, that the privileges of the higher grade would be perhaps, as they are now, conventional. The physician had not, at the present time, equal *legal* privileges with the general practitioner.—Mr. C. read an extract from a letter addressed to him by W. Wood, Esq., of Edinburgh, explaining that the College of Surgeons of that city were in favour of honorary degrees in medicine, but that they were of opinion that such distinctions should bestow no *exclusive* right or privilege.

Dr. Forbes's motion was then put, and agreed to unanimously.

3. Incorporation of the profession.

Dr. Marshall Hall moved "*That, in the opinion of this meeting, the legally-qualified members of the medical profession in great Britain and Ireland should be incorporated into three faculties, or corporations; one in England, a second in Scotland, and a third in Ireland.*"

This motion was seconded by Dr. Webster.

Dr. Cowan was persuaded that members of the new faculty would not go to the old colleges for admission: the latter would be converted into inferior bodies by the faculty; the present corporations would not submit to a casual or voluntary admission of members. And he thought that the changes involved in the proposal of Dr. Hall would be entirely frustrated by the powerful opposition of those bodies.

Dr. Forbes observed, that the Apothecaries' Company was the only legal qualifying body in England, and yet the colleges were repaired to.

Dr. Cowan thought that the colleges were preferred in public opinion, and therefore their diplomas and degrees were sought by the candidate for medical or surgical practice. If the colleges were corrupt, why should they be continued on any terms?

Dr. Forbes replied, that the existing medical institutions would be reformed, and might be made so many component parts of a new system of medical polity.

Dr. Marshall Hall did not think the licensing board would be a higher body than the universities and colleges: it would be a larger body. The in-

ability of the colleges to promote uniformity in the qualification of persons entering into practice, indicated forcibly the need of a new and general board.

Mr. Carter could not think that the mere admission of a licentiate of medicine into the College of Physicians by ballot, on the payment of a certain fee, should constitute him a graduate or doctor in medicine. Such a title should convey some meaning, it should not be an empty sound, and should not be procurable without some decided tests of superior attainments in medical science. He was an advocate for two grades in the profession; but he thought it was only fair towards the public, and just to the profession, that titles and degrees should be based on some clearly-defined and proper principle: that such was not the case at present, he need hardly stay to remark. Young men, at the age of twenty-one, were annually sent out into the world as doctors of medicine, because they had studied during four winter sessions in the university of Edinburgh. It often happened, at present, that the general practitioner was a man of vastly superior attainments to the graduate or doctor in medicine. Such anomalies should be put an end to; the title should be the mark of that which its name implies—of superiority of attainments. He doubted not there were different ways in which grades might be conferred; upon principles not only of justice, but of positive advantage both to the public and medical practitioner. He thought that the title of doctor should not be attainable by any man until he had reached the age of twenty-eight or thirty. An examination should be instituted for those who wished to enter the higher grade; and this should only be instituted, on condition that the candidate had previously possessed himself of the license of the national faculty, and that the grade should not be confined to men who possessed the largest share of pecuniary means. He would make it open to all who should pass the said examination, whether, during the interval which had elapsed from his taking the license, and applying to be examined for the degree, he should have been occupied in prolonged academical studies and hospital attendance, or in the actual duties of his profession. In some such way as this, he imagined that grades might be conferred with benefit to all: they might hold out an inducement for men of fortune to select medicine as a profession; and it often happened that such persons, being less solicitous about practice than their less wealthy brethren, were found to devote themselves to scientific labours and researches which were calculated to improve their art, and it was therefore desirable that there should be such men in the profession. On the other hand, the grade being open to every licentiate, without his being obliged to return to his academical pursuits after obtaining his license, would act powerfully as an incentive to continued exertion, and as a reward of industry. It would not, he thought, be well to strip the profession of distinctive titles—it would not tend to secure it the respect of the public in a country where titles and distinction were looked upon with consideration. It had been urged that the poor curate began life with the same education as the wealthy vicar. But were there no grades in divinity,—were there not M.A., B.A., and D.D., in the same university or faculty?—Were there not also distinctions in the bar? Were

there not serjeants and queen's counsel? And did not the church and the bar hold out rewards and inducement to industry, which the medical profession never could do? Would not the poor curate become the vicar, the prebendary, the bishop, the archbishop? Could not the lawyer become a judge or a chancellor—the keeper of the queen's conscience! He was of opinion that there should be two grades; and as a medical senate would be required for regulating the qualification of licentiates, he thought that to the same body should be confided the prescribing of the terms in which grades should be attainable. Such regulations ought not to be left to a number of different institutions, which had a pecuniary interest in the matter. These observations were somewhat misplaced. He had made them, however, because many persons supposed that by incorporating the profession into one faculty, there must of necessity be amongst its members but one grade: the term faculty was confounded with the word grade. It was quite consistent for men of different titles to be incorporated together; they were so in all our universities; and it was most desirable that this mistake should be corrected.

Mr. Ceely said, the last speaker had expressed his own sentiments on the subject of grades and of incorporation.

Dr. Macartney had no objection to ascending grades. He objected to the term lower grade, when it was used to imply that there should be one class of practitioners for large and wealthy towns, and an inferior class for rural or thinly-peopled districts.

Mr. Wickham was in favour of a protecting faculty and uniformity of qualification for a license. But should not the higher grade be conferred by the same board which gave the license? Might not a joint board be composed of existing corporate officers?

Dr. Forbes thought that a representation of the existing institutions might be infused into the councils of the new corporations or faculties.

Dr. Cowan suggested, that the conference might agree that the profession should be incorporated, without expressing an opinion as to the mode in which this should be accomplished.

Dr. Webster dwelt strongly on the importance of a faculty, both as relating to Government protection and qualification of medical men: he should reserve what he had to say respecting grades to another opportunity.

Dr. M. Hall's motion was then agreed to, and the meeting was adjourned until Saturday, 6th inst., at two o'clock p.m.

It was resolved,—That five members should constitute a quorum, and proceed to business, provided that three of the members should be of different associations from the remaining two.

HOUSE OF COMMONS.

MEDICAL INTELLIGENCE.

Tuesday, April 6.

Mr. Hawes gave notice that on the 22nd instant he would move the second reading of the Medical Profession Bill.

Mr. Hawes also presented a petition from Cockermouth, in favour of his bill.

Mr. Wakley has given notice that he will move the addition of the following clauses, relative to medical relief, to the Poor Law Amendment Act.

1. That no medical district in any parish or union shall be larger than ——— square miles.

2. That no medical district in any parish or union shall contain a greater number of inhabitants than ———.

3. That the system of letting the medical treatment of the poor by tender be abolished.

4. That no medical officer, or relieving officer, or governor of any workhouse, in any union or parish, be allowed to be the registrar of deaths for any district in which such workhouse, parish, or union may be situated.

5. That no medical officer of any parish or union, or clerk to any board of guardians of any parish or union, be allowed to be coroner for any district, city, liberty, or borough, in which such parish or union is situated.

6, 7, 8, 9.

10. That the rector, vicar, or curate, and the churchwardens or overseers of any parish, shall be empowered to grant a "medical order," in case of illness happening to any pauper; and the pauper having such order shall be empowered to take it to a medical practitioner of his own selection; the said order to state the sum which shall be allowed for medicines and attendance in the case; such sum not to be more than ——— shillings, nor less than ——— shillings.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on April 2, and April 5, 1841.—Thomas Hore Graham, Thomas Johnson, Edward Menzies, John Charles Parrott, Thomas Longmore, Frederick Weatherly, Emanuel Swasey, Thomas Moore, John Charles August Franz, William Nerobegin, Richard Southby Otto Thring, Thomas Godfrey Heathcote, William Akid Rogers, Jeremiah Medlicott, Alexander John Shepard, Robert Trout Hawley Bartley, Alfred Emson, Thomas John Young, Thomas Jones, Thomas Taylor, Edward Frank Mecey, Dayrell Joseph Thackwell Francis, Hugh Stott, Henry Cox Mason Stead, Charles Gerhard Borehends.

BOOK RECEIVED.

A Complete Treatise on Venereal Diseases and the Immediate and Remote Consequences, including Observations on Certain Affections of the Uterus, attended with Discharges. By William Acton. Illustrated by an Atlas of Plates. Renshaw, London, 1841. 8vo. pp. 410.

Printed by THOMAS ISOTSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JOSIAH PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMSBY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, April 8, 1841.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

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STAMPED EDITION SEVENPENCE.

CLINICAL LECTURES

IN COURSE OF DELIVERY DURING THE PRE-
SENT SESSION,

AT

GUY'S HOSPITAL.

By JOHN MORGAN, Esq.

(Published with permission of the Lecturer.)

WEDNESDAY, APRIL 7, 1841.

LECT. II. On the General Treatment of Fracture.

GENTLEMEN,—At the conclusion of the last lecture, after having spoken of the pathology of bone, I was explaining some of the causes of non-union of fractures. I shall not now enlarge upon that part of the subject, but proceed at once to speak of the treatment of fracture, giving you some general rules of practice, before I speak of the particular cases now under my care in the hospital.

I am often very much amused in going round the wards to hear the remarks of some practitioner of the old school with regard to the treatment of fracture. You will often hear such remarks as this, "How do you put up your fracture now? In the straight position, or on the inclined plane? on the side, or the heel?" the questioner expecting to find, as in days gone by, some one plan to which all fractures are subjected. Gentlemen, there is but one answer to such questions as these, and that is—always place a limb in that position in which the bones are brought into apposition, and in which the patient experiences the most ease and comfort. Generally this will be in that position in which all the muscles capable of acting on the fractured extremities of the bone are relaxed, but not always, for a spiculum of bone may be irritating one or more muscles, and exciting them to undue action, and you cannot tell, *a priori*, when this is the case. Your surest guide, then, is the comfort of the patient, and sometimes this consideration will lead you to place a limb in the most extraordinary position, of which we had an instance not long since in our wards, a man who had fracture of the tibia, only being easy when the knee was brought in close contact with the abdomen. Generally this is only necessary in the early periods after fracture, more usual positions being adopted when muscular irritation has subsided.

The grand objects of the general treatment are to prevent inflammation, and to restore the limb to a useful state without deformity. To ensure these results, there are several minutiae in practice which must be attended to, apparently trifling perhaps, but really important. In the first place, as to the kind of bed the patient is to lie on—the friends will probably wish it to be a feather bed, but a flock mattress is far better. The feather bed is softer at first, but after a little

time it becomes knotty and very uncomfortable, and by no means so convenient for the application of local means, such as the bed-pan, as the flock mattress. When called to a case of fracture, be careful not to move the patient until you have procured some solid support for the broken ends of the bone, for great pain and serious inflammation are almost certain to follow any rough handling. Procure a splint then, or some extempore equivalent contrivance, before you attempt to move the sufferer. Then the question comes, would you apply leeches? and looking to the swollen state of the soft parts, you would fancy that acute inflammatory action was going on, and at once direct a number of leeches to be applied. It is occasionally necessary to do so, but their indiscriminate use must be condemned. There are various objections to them. Sometimes the swelling spontaneously subsides almost as rapidly as it came on, and in that case leeching is evidently unnecessary. Again, in strumous constitutions a suppurative inflammation is apt to come on in the bitten parts, and then you have a number of inflamed ulcers on the surface of the injured part, which would obviously prevent the application of a tight bandage. Thus, where early bandaging is necessary, the necessary means cannot be used; for the pressure of the splints would not only produce local irritation, but erysipelatous inflammation. Leeching, therefore, ought to be avoided if possible. In healthy, plethoric subjects, if there be much febrile disturbance or continual pain, I am in the habit of directing a moderate bleeding from the arm, by which the pain is lessened, and there is much less consecutive fever. But you must be careful not to mistake a healthy farmer's man for a bloated brewer's drayman, who, instead of bleeding, requires the most powerful tonics we can command. The subject I mean is the healthy, temperate, robust plethoric subject, not accustomed to the inordinate use of fermented liquors. These you will often meet with in country practice, and such persons will experience great benefit from moderate blood-letting.

To subdue fever and inflammation, active purging is an obvious and common treatment. This is very well in fractures of the upper extremities, but when it is a lower limb that is injured, do not give a drastic purgative for forty-eight hours, as the disturbance to the parts by the constant use of the bed-pan is a very great objection to their early employment. Afterwards they may, of course, be useful.

With regard to rollers and bandages, it was formerly the practice to apply them directly, and they doubtless are useful if applied to steady the limb, but if used with an idea of compressing the parts, they are decidedly objectionable. When the thigh is broken, you would bandage the foot and leg to prevent œdema. The many-tailed bandage I never use, because I feel that any object gained by it is to be attained by simpler, and therefore better means. As to the early use of splints and ban-

dages, you will often find in private practice, that the friends of the patient are very fidgety until the limb is set in the orthodox manner, even though the case is one, such as fracture of the fibula, which can hardly ever require a splint in the first instance, doing just as well by merely resting on a pillow. But they are constantly harping on setting the limb, asking, "When will you set it?" and fancying nothing is right till it is fairly set. If you merely lay it on a pillow without splints, they will think you do not know your profession, and therefore it is a good general rule in private practice to pretend to set it, appear to fall in with the common opinion, and humour the prejudices of the many, merely applying a splint or two without making any pressure, and with this they will be quite satisfied. It is the fashion with the mass to regard setting as an exceedingly formidable sort of operation, and formerly it really was so, great force being used to pull the parts together, without reference to the muscles which were causing displacement. But if you act so as to relax these muscles as much as possible, adjustment need not be so very painful. Some little pain is, of course, always produced, but not to anything like the degree commonly believed. In the first instance, then, you would put on splints, but merely keep them applied over the parts, without pressure on the fractured portion of bone; after a time they may be reapplied, or lightened by tapes.

As to the local applications in cases of simple fracture, the common saturnine lotion, liquor plumbi diacetatis dilutus of the London Pharmacopœia, is the one I am in the habit of using. Spirit lotions often do more harm than good; for unless the part is kept open, and constant attention given to keep the linen wet, and favour evaporation, the vapour becomes confined, and then, instead of cold, you have a warm stimulating fomentation. In old persons, instead of cold, you should use warmth and moisture, for in them the circulation is feeble, the blood-vessels indurated or ossified, and there is such a want of action in the whole system, that continued cold would be very likely to induce gangrene.

Your prognosis, in a case of fracture, will be guided by the age and constitution of the patient, and the amount of local injury to the surrounding parts. The situation of the fracture, also, is an important consideration with respect to prognosis. If the bone is but sparingly covered by soft parts, and there is contusion of these parts, they may become disorganized, and slough without any early appearance of serious injury. You would learn the history of the case, and if the fracture and contusion were caused by a blow, would anticipate serious results, much more serious than when the bruise is what may be called internal, that is to say, when it is caused by the projection of the broken end of the bone beneath the integuments. You will be led to see the danger by finding that the bruised integument is insensible to the touch, and then you have to apprehend gangrene and sloughing, with consequent conversion of the case into compound fracture. There is a case, now in Accident Ward, in which the tibia has been as nearly as possible thrust through the skin, but the patient is doing well. I remember a case which was brought to the opposite hospital, about twenty-five years ago, where

the bone was very nearly pushed through the skin, and this case strikingly illustrates the mischief produced by the old practice of swaddling up the limb, so that you cannot see what is going on beneath. The danger of this practice is really very great, for the integument being insensible, the bone will pass through the skin without pain or consciousness of the occurrence on the part of the patient, no active inflammation going on in the surrounding parts. In the case to which I allude, one of the fractured ends of the bone was very prominent, and as I saw them covering the limb with strips of soap plaster and rollers, I suggested that they might probably injure the soft parts; when the surgeon replied, "O no, sir, it will all round off." However, when the dressings came to be removed, the bone had penetrated the skin, and thus a simple was converted into a compound fracture by bad surgery, and I have seen this very nearly the case in several other instances. Another effect you must especially guard against in old people, is sloughing of the nates, for there have been many cases in which this has destroyed life, long after all the consequences of the fracture have been repaired. Examine the parts every day, and directly you discover any purplish redness on the parts exposed to pressure, put the patient into a water-bed. Many other bedsteads have been recommended, but I can say from experience that none are so useful as the water-bed.

The subject of contusions, in connexion with fracture, is a very important one, as this complication gives rise to some of the greatest difficulties that you will meet with in practice. I think it right, therefore, to go into this point at some length. Now, whenever a part of the human body has been struck by a hard substance, with force sufficient to crush the soft structures beneath the skin, without dividing the surface, that injury is called a contusion. If the skin has been torn through, so that the internal bruise communicates with the external opening, it takes the name of a contused wound. A contusion, therefore, is simply a laceration of vessels and other soft textures beneath the skin, from the pressure and concussion of blows inflicted by hard and heavy substances; whilst a contused wound differs from a lacerated one, inasmuch as the parts are always crushed, and consequently disorganized by the nature of the injury. A lacerated wound is occasioned by a solid body driven through the soft parts; a contused wound is produced by the pressure and concussion of hard substances driven down upon the parts. A lacerated wound may extend to any distance beyond the first point of contact; a contused wound confines its sphere of action to the part where it first strikes. Let me give you an example. A man falls perpendicularly upon his head upon the pavement, and makes a contusion upon the part; but if he pitch upon an iron railing, it passes through the parts, tears them, and makes a lacerated wound.

The effects produced by a contusion are well known to you, namely, swelling and discoloration in the part, with tenderness under pressure, and a greater or less degree of continued pain. The swelling is occasioned in the first instance by effusion from the divided vessels. This, however, is in most cases inconsiderable, and unless a large vessel has been ruptured, the quantity of blood poured out in this way bears no proportion to the

second cause, namely, the effusion of serum and adhesive matter, which the consequent accession of inflammatory action throws into the surrounding parts. This deposit, with the extravasated blood, is poured into the adjacent cellular membrane, and these textures, therefore, become filled and distended, in part by blood from lacerated vessels, in part by effusion from subsequent vascular excitement. The most common examples of the effects of contusion present themselves in what is commonly called a black eye. In the first instance the swelling is confined to the point of contact, but in a very short time, the loose cellular textures surrounding the eyelids are filled by extravasated blood, serum, and adhesive matter. The accompanying pain is produced not only by the violence done to the nerves in the part, but also by the pressure they suffer from surrounding distended structures. In wounds this distension is in part prevented by the outlet to the secreted fluids, while, in contusions, these are confined in consequence of the skin remaining undivided, and exert compression upon the surrounding parts, causing pain which varies with the extent of the compression.

The nature and consequences of contusions will depend, not upon the degree of force with which the injury is inflicted, but upon the resistance which is offered to the blow by subjacent bone. Thus, if a hard solid body be struck against muscular or other soft parts, these structures will yield considerably before their fibres give way, and it therefore requires a very considerable degree of violence to produce extensive injury. But when the skin and cellular membrane lie in close apposition to bone, a firm resistance is offered, and the intervening soft parts will be readily broken down between the two solid bodies. Whenever, therefore, you meet with a case of contusion occurring in soft parts far removed from bone, you will seldom have to fear any serious consequences, for if the partial destruction of parts and the effusion from divided vessels and inflammatory action, present a mass of substance disproportioned to the restorative action which has been set up, an abscess will be the consequence, and the dead parts will be thrown out by suppuration and ulceration; but it will be a simple abscess of parts which are easily reproduced or repaired. On the contrary, a severe contusion of the integuments covering the fore part of the tibia will be attended with very different consequences; yet the first appearance would lead you to suppose that it was an accident of minor importance. But in these cases we frequently find that although the swelling is trifling, yet the mischief has been great; that the skin and cellular membrane have been crushed beyond the power of future organization; they slough, therefore, and leave a large ulcer upon the part. If the periosteum and bone have suffered, exfoliation will take place, and thus a long protracted disease is set up. I am not stating an imaginary case, for a short time ago I amputated the leg of a man in Cornelius Ward, who had fracture from contusion followed by slough of the integuments, and necrosis of the bone, and an obstinate malignant warty disease. You would therefore be very guarded in your prognosis, where a severe contusion complicated a fractured bone, especially in the extremities of old people, whose circulation in the extreme vessels is but imperfectly carried on by ossified arteries and varicose veins.

It frequently happens that a serious mistake in practice may arise from a want of knowledge respecting the appearances which contusions sometimes produce upon the scalp; and in making these remarks, I wish you distinctly to understand that I am by no means applying them to the case of injury of the head, admitted a few days since. I find that there were peculiarities in that case, which differ from the class I am about to describe, but I do not allude to them, as they will probably form a subject of clinical remark for my colleague. The following is the sort of case of which I am speaking. A patient is brought to you, who has fallen from a height upon his head, or who has received a violent blow upon the part. You shall find no wound, but apparently evident depression of bone. You feel, as you suppose, a distinct *ledge* of bone, and a depressed portion underneath. The patient is labouring under symptoms of compression from the accident, and the nature of the case appears beyond the possibility of a doubt. Now if you should be ignorant of the proper mode of distinguishing the common appearance of contusion in this part, you would immediately proceed to trephine, but, when you had denuded the bone, would be surprised to find that there was no depression. Let me, therefore, tell you the cause of this fallacious appearance, and how to distinguish it from real depression of bone.

In consequence of violent contusions upon the cranium, that portion of the scalp which has received the blow becomes completely deprived of all vital action from the violence done to the vessels and nerves. The consequence of this will be, that when inflammatory action is set up, these disorganized vessels are incapable of receiving into their cavities the increased quantity of blood which is sent to the part, for they remain jammed with the adjacent cellular membrane into a condensed mass, without sensation. This part, therefore, receives no impression from the inflammation which is set up around it. The surrounding parts, however, are excited to an increased degree of vascular action, and pour out adhesive deposit as far as the border of the disorganized scalp. This line of demarcation between the injured and the sound parts, is, in all these cases, remarkably abrupt, and consequently you have a defined ridge of adhesive matter overhanging a surface of disorganized scalp. The ridge is mistaken for the sound bone, and the circumscribed and disorganized scalp for the depressed portion. So firm is this deposit, that any one unacquainted with the appearances of contusion in these parts might very readily be deceived, and be led to propose an operation by the performance of which you might probably lose a considerable share of reputation.

Let me now tell you how to avoid falling into this mistake, by pointing out the distinguishing marks between such a case of contused scalp and a real case of depressed bone. In both cases you find effusion of adhesive matter to a greater or less extent around the part; in both a defined edge; and very frequently in both, coma, stertorous breathing, and every symptom of depressed bone, and consequent compression of the brain; but in the spurious case, by comparing the injured with the sound side of the head, you will find that the ridge overhanging the supposed depressed portion is somewhat above the level of the opposite side, whilst the supposed depressed portion is exactly

in its natural situation. In a case of real depression it will be the reverse. But the most distinguishing mark is this: place and press your finger across the defined edge, which lies above the supposed or really depressed surface; if by firm and continued pressure you feel the parts yield—if a deep pit is formed by your finger, without any sensation of that hard edge which a real depression of bone would produce—if by continuing that pressure you bring your finger on a level with the supposed depressed portion, of course the nature of the injury will be clear. But if by continued pressure you find the parts becoming harder until a defined sharp edge of bone is opposed to the point of your finger, then you may be assured that depression really exists. Those who have not witnessed these cases, would hardly believe that so great a similarity could exist between appearances presented by depressed bone, and the effusion of adhesive matter from contusions of the scalp; but there are many present who can confirm from experience what I have now stated; and as such cases are frequently occurring in the public hospitals of this metropolis, you will probably have an opportunity of seeing several of them in our two hospitals during the present season. In some cases the disorganized scalp recovers its vital powers, and after a length of time becomes again organized. In other cases it is permanently destroyed, and must be thrown off by the sloughing process.

The local treatment in cases of fracture, accompanied by contusion, will consist, first, in regulating the degree of vascular action in the part, and secondly, in producing by various means the absorption of the extravasated and effused matter. In slight contusions, attended with considerable tension and tenderness in the part, you would first apply cold evaporating lotions, keep the limb at rest, and in a position to relax the integuments and muscles as much as possible. You would avoid leeching if you could, but very often you have no choice; for if you do not apply them, suppurative inflammation would come on, and convert the simple into a compound fracture. If any considerable portion of the injured structures had been *completely* disorganized, this will alter your plan of treatment, for the subsequent inflammation will not yield until suppuration has been established; and to promote this, you make use of fomentations and poultices, keeping in mind at the same time the necessity for relaxation and perfect rest of the parts. In addition to this, the bowels should be freely acted upon by purgative medicines.

When you have a fracture about a joint, and contusion of the soft parts, or even severe contusion over a joint without fracture, it will very frequently become necessary, in addition to topical bleeding and the other means I have mentioned, to lessen the tendency to inflammatory action by abstraction of blood from the arm. In this you will be guided by the pulse, and by the degree of pain in the part. If the pulse is accelerated and sharp, and febrile irritation has been set up in the system, and if the surrounding parts are tender under the touch, you will lose no time in arresting by antiphlogistic remedies the progress of a diseased action, which might otherwise terminate in synovitis and destruction of the tissues of the joint. After inflammatory action has subsided in

any case of severe contusion, whether over fracture or not, your next object will be to use such measures as may tend to promote the removal, either by absorption or otherwise, of the deposit which has been thrown out under the skin. If that deposition is not of great size or extent, this will be easily accomplished by friction and the various liniments in common use, by which you excite increased action in the neighbouring absorbents. It sometimes happens, however, that a large vessel has been ruptured, and consequently that a considerable coagulum is thrown into the cellular membrane, or that a slough of dead cellular membrane is confined beneath the skin. In both of these cases all attempts to promote absorption will be fruitless. A large coagulum of blood or slough of cellular membrane beneath the skin must act as extraneous substances, and will consequently require the process of suppuration and ulceration for their removal. These results of contusion require the same treatment (for the parts are nearly in the same state) as in a common case of carbuncle or anthrax. In both you find an extraneous substance formed by disorganized animal matter beneath the surface of the skin; in both, suppurative and ulcerative processes are set up for their removal; and in both, the plan of treatment will be precisely the same. In carbuncle you find a slough of cellular membrane beneath the skin produced by diseased action in the part, of which debility is the cause. In contusions you find a slough of cellular membrane beneath the skin produced by mechanical violence, and debility will be the consequence of the efforts which nature is called upon to make for its removal. In both cases you divide by a free crucial incision the integuments which cover the dead substances, in order to allow of its free exit from the living matter by which it is surrounded. In both cases you give tonic medicines and generous diet, and for these reasons—in carbuncle the *cause* of the disease is debility, and you wish to remove that cause by a stimulating plan of treatment—in contusion, *debility* will be the *consequence* of the future suppurating process by which the removal of the extraneous body is effected, and you therefore wish by a stimulating plan of treatment to assist Nature in the demand which has thus been made upon her resources.

When these sloughs communicate with the broken end of a bone, the case is a dangerous one; but still, as soon as you have evidence of suppuration, you would freely divide the integuments by a crucial incision, even though you would thus convert the case into one of compound fracture. The slough must be separated by a natural process if you did not interfere, and then you see the occurrence of compound fracture is unavoidable in either case, but by your incision you not only expedite the process of separation, but limit the extent of the disease. You merely assist Nature, and prevent greater mischief. Mere punctures can be of no use, for the dead matter is locked up in the cells of the cellular membrane, and will only flow from those cells which have been opened by your punctures; you will therefore, by such a mode of treatment, be putting your patient to unnecessary pain, for no possible good purpose.

**A CASE OF INGUINAL ANEURISM,
FOR THE CURE OF WHICH THE EXTERNAL
ILIAC ARTERY WAS TIED.
BY THE LATE SIR ASTLEY COOPER.**

THE ligature of the external iliac artery in cases of inguinal aneurism has been now so often repeated, and with so much success, that the ordinary reports of such cases present but seldom any unusual interest. The following, however, is a detailed report, by Sir Astley Cooper, of one of his earliest cases, having occurred in his practice nearly forty years ago, (a comparatively short period after the introduction of the Hunterian method of operating for aneurism,) and is also interesting, as it appears to have led that distinguished surgeon to the practice which he afterwards adopted, in opposition to that recommended by Abernethy and others; namely, of using only one ligature, and consequently not dividing the artery. The less amount of disturbance and irritation caused by this latter method, the late improvements in surgical science, and our more accurate ideas regarding the anatomy and diseases of arteries, and, above all, an ample amount of experience, have thoroughly proved the safety and sufficiency of the single ligature, and it is now therefore adopted by all the principal operators of the present day.

William Cowles, *æt.* 39, a gardener by trade, about six months ago walked five miles with a heavy burden, which strained and fatigued him very much. Two weeks afterwards, feeling a slight pain in his groin, he examined and found a hard lump the size of a hazel-nut, which throbbed under the finger. As the pain was then inconsiderable, he disregarded it for six weeks, when the tumor had grown to the size of a large marble. He observed now, upon drinking more than usual, that the throbbing became much stronger, and the pain from tension much greater. He continued to work at his business, suffering, however, great inconvenience and pain from the tumor, more especially when he stooped. At the end of another six weeks, the swelling was as large as a walnut, beating with increased force, and in six weeks more had attained the size of a pullet's egg. He now left off work, on account of the violence of the pain, and in the following six weeks the tumor grew with increased rapidity, the pulsation became very strong, and the patient's sufferings extreme. Three weeks ago he came up to town, a distance of 120 miles, on the outside of a coach, and falling asleep on his belly, the tumor was exposed to considerable injury, and three days after his arrival, for the first time assumed on the surface a different colour from the surrounding parts. At this time he applied to me, (having come to town for that purpose). The tumor appeared then with livid spots, the patient still continuing to walk about, going twice from the Borough to Brompton, before the operation.

In this case the tumor was situated so high in

the thigh as to reach and raise Poupart's ligament—the artery had dilated to nearly the size of a small pint bowl—the skin covering it had become extremely thin, tense, and irregular on its surface, and the more prominent parts were of a mixed colour, purple and red of various shades. From the unfortunately far advanced state of the disease, I considered it my duty to lose no time in performing the only operation which promised relief to the patient, which I accordingly did at once.

June 22.—The tumor was now hard, and its pulsation distinct and forcible—the thigh and leg were of a natural temperature, and exhibited no symptoms of deviation from the healthy state. Before beginning the operation, in order to provide for any untoward event that might occur, I had a large key procured, and the ring of it wrapt round with tow. With this I was able readily to compress the artery as it passes over the pubis.

I began my incision about an inch and a half from the spine of the ilium, extending it obliquely to the femoral ligament. I first cut through the integuments covering the external oblique muscle, and displayed its shining tendinous fibres. I then carefully divided these, and exposed the lower portion of the internal oblique, which, together with the inferior edge of the transversalis, I turned up with my fingers, insinuating them at the same time under the peritoneum. I was now able to feel distinctly the pulsation of the external iliac artery, and proceeded to separate it from its accompanying vein, which I did with the handle of my scalpel. From the depth of the artery, and the impossibility of distinguishing it with the eye at the bottom of the wound, I considered this to be the most difficult part of the operation. This, however, being accomplished, with a little dissection, (still with the handle of my knife,) and by dividing with a bistoury a few of the lower fibres of the internal iliac and transversalis muscles, I completely exposed the artery detached from the surrounding parts, passed a double ligature under it by means of an aneurismal needle, and after separating the two ligatures, I tied the lower one as far down the vessel as I could draw it. The pulsation in the tumor at once ceased. I could now deliberately insulate a sufficient portion of the artery to admit of the upper ligature being tied, leaving a space of about three-quarters of an inch between the two. The end of the upper ligature, to which a needle was attached, I passed through the artery, securing it by tying it with its fellow. The concluding step in the operation was the division of the artery between the ligatures—and this portion of the vessel, it may be well to say, appeared to be perfectly healthy. The external wound was now closed by two stitches, supported by intervening slips of adhesive plaster, and these were lightly covered with a fold of lint, while over all were brought the ends of a T bandage, and loosely connected so as to retain it.

Towards the conclusion of the operation, the temperature of the limb became sensibly diminished, but very soon regained a degree of warmth little below the natural.

The patient was put to bed at about half-past one P.M.; he was laid on his left side, with a pillow between his knees supporting the aneurismal thigh, (the right thigh,) and a cotton stocking was put on the right leg, and over this a doubling of thick flannel

which extended over the knee. These measures were adopted in compliance with my orders. The warmth of the thigh I could not perceive at this time to differ from that of the other. The pulse was a little hurried from the agitation necessarily dependent on the operation, and the patient, on being questioned, said he was not sensible of greater torpor or coldness in one limb than in the other.

3 P.M. The patient nearly as when I last saw him.

4 P.M. Pulse moderate. Thigh, leg, and foot increased in warmth.

8 P.M. I called to see my patient; pulse about 85; foot and leg perspiring; patient free from pain. I think the tumor is not so dark coloured.

Half-past 10 P.M. I have just left my patient, who says his limb is quite comfortable; the warmth of it is about the natural standard.

June 23rd, 6 A.M. Patient has slept but little, complains of soreness of the abdomen above the wound; pulse more full than last evening; heat of extremity natural.

10 A.M. Patient as at six.

1 P.M. I saw the patient, who still complained of soreness above the wound. Sulphas sodæ ordered.

10 P.M. Salts not producing the desired effect, the senna electuary was given, but has not yet operated.

Half-past 10 P.M. Called and advised, if evacuations are not produced by the means already used before 12 P.M. that a clyster shall be administered. Pulse 96. I think the tumor is diminished.

June 24th, 6 A.M. The clyster was given as directed, and the patient had two copious evacuations during the night, and afterwards slept comfortably. Pain above the wound diminished, heat of the limb natural, pulse less full than last night.

2 P.M. Pulse fuller and stronger.

8 and 10 P.M. No alteration.

June 25th, A.M. Patient complaining much of want of rest; says that he did not sleep a quarter of an hour all night; has had no evacuation from the bowels since yesterday; pain above the wound much abated; pulse full.

3 P.M. I called and ordered the senna electuary; patient has had no evacuation; pulse full and strong.

10 P.M. Pulse 108; first perceived a discharge of pus from the wound; great constitutional irritation; no motion yet.

26.—7 A.M. Patient delirious during the night. He required watching to prevent his getting out of bed from 12 until 5, when he had free evacuations from his bowels, and fell into a gentle sleep. Pulse moderate, skin cool, tumor evidently diminished. Patient says he is entirely free from pain.

11 A.M. Patient asleep.

Half-past 2 P.M. I called, and thought the patient better than yesterday; the wound has discharged considerably since last evening. I suppose the confinement and accumulation of the matter produced the delirium and other symptoms of irritation. I took off the lower strap, to allow of a free exit for the pus; observed that the granulations were healthy; sponged the wound and tumor; the latter being considerably less than yesterday, and much softer; pulse 104.

11 P.M. Pulse 108; in other respects as before by my orders, patient had oranges in the afternoon.

27.—7 A.M. Patient has not slept during the night. About 12 he had a very copious evacuation, after which he felt very comfortable; tumor evidently smaller than yesterday; pulse 100.

28. Patient had evacuations at 3 A.M., since which time he has slept; pulse 125; free from pain.

1 P.M. I called, and took off all the straps, and sponged the wound. Discharge healthy, and not profuse. Tumor very soft, and much diminished. I am surprised that the blood continues so long fluid; patient ordered to take more support, as the suppurative stage is established, and I fear exhaustion; pulse 102.

29. Pulse 108, jerks. Rheumatic sensations in his limbs and other parts of his body. Respiration quick. Spirits good. Tumor very soft, and the skin over it thin. Discharge from the wound thin, and not so copious.

30. The tumor began to discharge dark blood at ten last night. Pil. Opii prescribed. Rested tolerably well during the night; in a perspiration this morning; feels quite easy. Poultice continued on the wound. Tongue brown, but moist. Two P.M. I called and pressed the blood from the aneurismal sac, and I was glad to find it had begun to discharge. Ordered a sponge wet with vinegar and water to be laid over the tumor, which now appears a flaccid dark-coloured bag. The patient's pulse is soft and moderately slow, and is better than it has yet been. A light poultice continued on the wound, which looks remarkably well, and discharges healthy pus. No pain. Ten P.M. patient asleep—has taken an opium pill.

July 1. 9 A.M. Skin cool, pulse soft, aneurismal sac entirely collapsed. Sponge with vinegar and water continued. 2 P.M. I saw the patient, and dressed the collapsed sac with lint. The discharge of dark blood still continues, but in small quantities. Pulse moderate. Wound healthy—poultice continued. 9 P.M. Pulse stronger and fuller; has had three evacuations to-day. P. Opii, gr. i. prescribed. Full diet.

July, from 2 to 7. The wound and bottom of the aneurismal sac (the roof having sloughed away) dressed with lint, and a poultice applied over all; healthy pus discharged. Granulations from both the wound and the sac florid and healthy.

8. The upper ligature came away this morning with the poultice, no force having been ever used to bring it away. Lint and poultice continued.

9. The lower ligature came away; wound healthy, sac filling rapidly; granulations florid.

10 to 12. No alteration.

13. No change except a little languor from heat. The bed moved into a cooler position. A pint of porter daily ordered.

14 and 15. Doing well.

In about a week afterwards the tumor in the groin had completely closed. After this he was frequently at night attacked with fever, pains in the thigh and leg on the diseased side, and also commencing at the wound, and shooting across the belly; and with lowness of spirits. His appetite and strength, however, daily increased.

In about eight or nine days after the wound had closed, the scab was struck off, and a little matter

oozed out for several days; but it again closed, and he then felt the fever, &c. as above described, with sharp pains across the belly. On Thursday, 25th, a quantity of yellow thick matter forced its way out at the part where the operation was performed, and also at the part which had closed below. The discharge continued all night, and he was much easier than before, without fever, pain at lower part of belly, &c.

On Friday morning a bread and milk poultice was applied, and the discharge continued pretty copious until the following morning. Previous to the breaking of this abscess he had walked a quarter of a mile.

On the 1st of September, the two orifices were closed, but a fresh outlet appeared in the groin, and about a quarter of a pint of matter was discharged through two openings. He says that he feels much easier since this last discharge has taken place. He has very little fever, his appetite is very good, and he increases in strength, but sleeps very little.

The discharge continued freely from the two openings in the groin, but not from the two former places until Saturday, September 3. On that day he walked some distance, drank some wine, and when he returned home, the two orifices, from which the matter had been previously discharged, but which had for some time been closed, again opened and discharged about a quarter of a pint of yellow fetid matter as before. On the same day a diarrhoea took place without any evident cause; and, notwithstanding the administration of numerous remedies, continued to be profuse for seven days; at the end of which time it became less frequent. He continued in this state, being purged occasionally, once or twice a week. The discharge from the four openings, amounted to about a quarter of a pint daily, until September 23, when another abscess appeared about half an inch above the wound where the operation was performed. On the day following it burst, and discharged nearly half a pint of pus. The surrounding parts appeared somewhat inflamed and indurated. Poultices have been continued over the whole, the Pil. Opii being administered at night; and he is still, notwithstanding the great discharge, able to walk about a little, but complains of frequent pains in the diseased limb, and occasionally, he says, in the bone of the thigh. On walking, the limb swells from the hip down to the ankle. His appetite is very good, he eats five times per day, drinks two pints of porter, and occasionally wine, or wine and water.

In the expectation of inducing a more vigorous state of constitution by the assistance of country air, the patient now left London, and Sir Astley Cooper makes no note of having afterwards heard of him.

**CASES OF LACERATION
OF
THE POSTERIOR PART
OF THE VAGINA AND CERVIX UTERI,
SUCCESSFULLY TREATED.
BY JONATHAN TOOGOOD, ESQ.
SENIOR SURGEON TO THE BRIDGEWATER INFIRMARY.**

In a paper published by Mr. Birch in the 13th volume of the *Medico-Chirurgical Transactions*, he

states that lacerations of the posterior part of the vagina and cervix uteri always prove fatal. Having met with two cases of very extensive laceration of that part which healed completely in a short time, I think the publication of them may be useful.

CASE I.—Mrs. Collins, a delicate woman of thirty, was seized with uterine hæmorrhage at the seventh month, which recurred slightly twice before the completion of the eighth, when it increased suddenly to an alarming extent. It was then ascertained that the placenta was lying over the os uteri, and immediate delivery was determined on. At ten in the morning of the 19th of April this was effected without any particular difficulty, but with considerable hæmorrhage, which continued after the expulsion of the placenta, to such a degree as to make it advisable to introduce the hand for the purpose of checking it. I then discovered a very extensive laceration of the posterior part of the vagina, which extended to the cervix uteri. Another surgeon, who was present at the delivery, made, at my request, a careful examination, and satisfied himself of the nature and extent of the rupture. The uterus was well contracted. For two hours she remained in a most alarming state, the hæmorrhage continuing, with constant restlessness, fainting, and exhaustion. About half-past twelve she appeared to be rapidly sinking, when a violent fit of vomiting came on, which seemed to relieve her, and she slept for half an hour; but during that time it was often doubtful whether she was still alive. She was quite cold over the whole surface, and this state continued for three hours. Cordials and opium were administered unsparingly, and she gradually became warmer, and now complained of great pain in the belly. She suffered much from exhaustion, but had some sleep during the night.

Second day.—Her countenance was rather improved; the pulse perceptible, but very small. She had occasional sickness, and still some hæmorrhage: complained of excessive exhaustion, but not of noise in the ears, and loss of sight, but never quite fainted. Cordials and opium were given, and perfect quiet enjoined. In the evening reaction commenced; the pulse became full, but easily compressed; the pain in the belly was increased, with feeling of great sinking and weakness. The catheter was passed, and effervescing medicines, with opium, given.

Third day.—The night was passed without sleep, and the pain in the belly much increased, with restlessness, thirst, full, frequent, weak pulse, sickness, and sinking feeling. The belly was fomented, the catheter passed, and an injection of warm water given; cordials and nutritious food were continued, with perfect quiet. I found her much the same in the evening; but she had slept a good deal at short intervals during the day.

Fourth day.—She had had no sleep during the night, and I found her extremely restless, hot, and flushed in the face, with a pulse of 140: complaining of extreme weakness, and fainting, with sickness and frequent vomiting: the belly tense, countenance exceedingly anxious, very talkative, and desponding. All the symptoms had become so much worse, that I scarcely hoped to find her alive on my next visit. The catheter was passed, a warm water injection thrown up, and an opiate given.

Fifth day.—I had the satisfaction of finding my patient in every respect better this morning. She had slept a great deal; the pulse was less frequent; the skin moist; the tongue, which had been dry and brown, was now moist, but the edges were apthous. She had made water freely, and the bowels had been relieved. The sickness had returned once only. She was much more tranquil, had taken nourishment frequently, and thought better of herself. After this day, my anxiety as to the result of this case ceased, and the improvement was so regular, that at the end of a month she complained only of weakness and slight purulent discharge. About ten or twelve days after delivery, finding there was a copious purulent discharge, I passed my finger gently into the vagina, and found that although the rent was still large, it was filling up. At the expiration of six weeks there was not the slightest discharge of any kind, and a long firm cicatrix could be plainly felt. I believe the success of this case may be fairly attributed to the great attention which was paid to it, and by following the treatment so judiciously recommended by Dr. Marshall Hall after great losses of blood. When the reaction commenced with so much pain in the abdomen, I was importuned by the friends to take away blood, under the impression that inflammation was going on, in which opinion they were joined by the surgeon who was present at the delivery; but I felt so satisfied that the symptoms arose from a different cause, and that the loss of a small quantity of blood, although attended, perhaps, with immediate relief, would, in all probability, have been fatal, that I determined to trust to opium, cordials, nourishment, and perfect quiet. My plan was admirably seconded by the unceasing attention of her husband, and her recovery was complete in every respect.

CASE II.—I was requested, by a surgeon of this place to visit Robert Stewart's wife, who gave me the following account of her case. She had been in labour a long time when he was called to her, and found the shoulder presenting, and the uterus closely contracted around it. The delivery was very difficult; and on introducing the hand to remove the placenta, he found a considerable laceration of the posterior part of the vagina, in which the cervix uteri was involved. The intestines were lying in the vagina, which he returned after he had extracted the placenta, and retained them with his hand until the uterus had contracted. In the delivery she complained of sudden and great pain, and the labour pains instantly ceased; violent hæmorrhage followed, and continued for many hours. It was going on when I saw her, and she was in such a state of exhaustion that she appeared to be dying. The abdomen was much swollen, and she could not bear the pressure of the bedclothes. The pulse was small and fluttering, and she complained of great pain. In the evening she made water, which considerably relieved her. On the third day, vomiting of a dark-coloured fluid came on, and continued so long and violent that she again appeared to be dying, but was relieved by large opiates. After a number of alarming symptoms she recovered, and had a copious discharge of matter after delivery, and could not stand erect for months

Boston, April 1841.

NEW VIEWS

OF THE

ANATOMY OF THE BRAIN.

By Dr. FOVILLE.

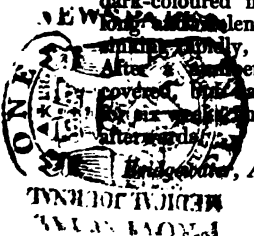
OF the three methods which have been most generally used in examining the brain, the one employed by Dr. Foville is that by the vertical section, as it allows, more completely than either of the other two, the connexions between the brain and spinal marrow to be examined. De Blainville objects to this method, on the ground of its destroying the commissures, or those parts which connect together the two sides of the encephalic masses. He proposes a fourth method, which he has been in the habit of employing himself; and which consists in removing successively the layers of muscle and bone on one side of the head, from the falx superiorly to the foramina in the base of the skull inferiorly. This plan leaves the parts in their normal position, preserves their connexions, and is very little more difficult than the others, besides exhibiting the origin of the cephalic nerves, their exit through the holes of the skull, their connexion with the sympathetic, in a much clearer manner.

In order to make a just estimate of the extent and value of any discovery, it is necessary to be made acquainted with the progress made by those who have previously laboured in the same field. De Blainville gives a short summary of what was known of the brain and nervous system, previous to the researches of living anatomists, as follows.

The central nervous system, called cerebro-spinal, because it is contained within the vertebral bones of the cranium and spine, has for its base the spinal marrow. Taken as a whole in its entire extent, it may be considered as formed of two portions or opposite cones, applied base to base, like its vertebral sheath, and the muscles which move it at the termination of the spinal bulb. Of these portions or cones, the one, anterior and cephalic, is much shorter and more bulky; the other, posterior and rachidian, much longer and more slender. They are both in reality similarly composed of two symmetrical halves, like all the organs of animal life, and mainly differ in the degree of their development, their form, and the disposition of the second part of the cerebro-spinal nervous system, or that which has been designated under the general name of ganglions.

The central part, serving as a bond, base, and centre to the rest of the nervous system, communicates by connexions more or less extensive with the binary symmetrical masses, or ganglions. Of these ganglions, the one series is smaller, less pulpy, and gives origin to nerves which come or go to the sensorial or contractile circumference; the other series of ganglions has no nerves either afferent or efferent; their substance is generally thicker and more pulpy, and, like a species of accretion added to the central part, they appear, in the ratio of their development, proportionate to that of the intellectual or reflected sensorial faculties.

Lastly, without speaking of the distribution of the nerves, properly so called, those ganglions possessing an external apparatus communicate with the central part of the nervous system by radicular filaments, or, anatomically speaking, roots of two



orders, the one posterior or dorsal, the other anterior or eternal; or, in physiological language, the former sensorial, the latter locomotive.

These, then, are the conclusions to which former anatomists have conducted us, and for which we are mainly indebted to the works of Willis, Vienssens, Malpighi, Reil, Gall, and Spurzheim. And though the vantage-ground which our living anatomists had gained from their predecessors was high and important, yet, however advanced their starting point might be in their researches on the brain, it is clear that very much remains to be done, and that but little was known of the real structure of that subtle organ, in which, perhaps more than in any other, we are fearfully and wonderfully made.

Setting out from this point many years ago, Dr. Foville, after much pains and research, submitted their fruits, in his first memoir, to the Academy of Science at Paris, in 1825. It that memoir he showed that the fasciculus of white fibres constituting the *crus cerebri* is formed of two distinct layers, the one inferior and anterior, the other superior and posterior; the former continuous with the pyramids, the latter more particularly connected with the posterior parts of the medulla. 2nd. That these two elementary layers of the *crus* unite together, and traverse the optic thalamus and corpus striatum. 3rd. That in the corpus striatum, the *crus* divides the gray matter which it meets there into two distinct nuclei. 4th. That beyond this part its fibres form a radiating expansion, which immediately separates into three planes, an internal, a superior, and an inferior; that the internal plane curves over towards the median line, and forms the corpus callosum; the superior plane follows an oblique course upwards and outwards towards the gray substance of the hemisphere; the inferior plane is directed downwards, applies itself to the inferior part of the corpus striatum, and then mounting up near the median line, forms the corresponding side of the septum lucidum. 5th. That the disposition of the *crus* in the centre of the brain forms a pretty accurate counterpart to the spinal marrow, the nerves of which are represented by the fibres of the planes of the hemisphere.*

Subsequent investigation has induced Dr. Foville to adopt these views with some modification, but the demonstration of the continuity of fibre between the spinal marrow and the several parts of the brain just mentioned, was a very important step gained. The formation of the corpus callosum was also shown to be different from what former anatomists had supposed. Willis, Malpighi, Reil, Gall, and Spurzheim, regarded it as the result of a fresh order of fibres arising from the gray matter of the convolutions meeting on the median line. Tiedemann, like Foville, considers the fibres forming the corpus callosum to be the identical ones which proceed from the *crura cerebri*, but after their return from making the tour of the whole circumference of the hemispheres.

As the encephalic masses are now considered by all anatomists as mere expansions of the spinal marrow forming the anterior and superior cone of the nervous centre, it is essential to understand the structure and organization of the spinal marrow, or of the posterior and lower cone. The present memoir of Dr. Foville, being too short to allow of

lengthened detail, commences with an account of the white commissure connecting the two lateral portions of the spinal marrow. The structure of this commissure bears considerable analogy to certain parts of the brain. It consists of two surfaces or layers of matter very close to each other at the inferior part of the medulla, but more visibly separated above. There is, however, an interval between them throughout their extent, until they have penetrated the lateral portions of the marrow, when they appear to approximate and unite together. At the point of this union they appear to form a kind of axis, from which radiating fibres diverge into the lateral columns. The same radiation of fibres is also seen after the commissure has ascended to the medulla oblongata. Most of the fibres going to the roots of the spinal nerves appear to proceed from this axis, but this disposition is more evident in the posterior than in the anterior roots. On the median line these two layers are connected by two very fine planes of fibres passing antero-posteriorly from one to the other, and having likewise an interval between them. This arrangement immediately calls to mind the corpus callosum and fornix, in connexion with the anterior and posterior surfaces of the commissure, and the septum lucidum, with the fine fibrous plates passing between them. Dr. Foville thinks Malpighi had already noticed the cavity between the latter, and Dr. Hodgkin states that he has noticed it. As the commissure mounts upwards, its two surfaces become separated by all the space existing between the anterior and posterior surfaces of the medulla oblongata. The anterior surface appears to pass into the decussation of the anterior pyramids, and the pyramids themselves, whilst the posterior surface ascends superficially along the medulla oblongata, and after uniting by a very delicate band the two sides of the calamus scriptorius, becomes connected with the white fibres on the surface of the latter, which are generally considered radicles of the auditory nerve. "But," says Dr. Foville, "these remarkable anatomical arrangements are not to be found in the spinal marrow and medulla oblongata alone; they exist still higher in the *crura cerebri*. I must not now attempt to describe these connexions further, nor will I here undertake to describe the multifarious and highly complicated parts which are to be found in and above the medulla oblongata going to the cerebellum and cerebrum, into which many of them may be followed. I will merely remark, that among all these fibrous bundles, those in communication with the anterior pyramids are the most simple and the most direct in their progress to the brain through the *crus cerebri*, of which they constitute the inferior part."

After following the course of the two surfaces of the commissure, we return again to the fibrous columns of the spinal marrow, to inquire what part they take in the formation of the encephalon. According to Foville, these bundles, after forming the *crura cerebri*, of which the anterior pyramids constitute the inferior part, and the posterior bundles the superior part, the two latter separate and pursue very different directions. In tracing the course of each, we cannot do better than employ the lucid words of Professor Blandin, in his notice of Dr. Foville's paper.

"The pyramidal fibres mount obliquely forwards and outwards across the thalamus opticus and

* Blandin.

corpus striatum, go towards the convex surface of the hemisphere, and are there divided into two planes of fibres, one superior and the other inferior, both destined for the convolutions forming the external and convex portion of the hemisphere. The fibres which come from the posterior bundles of the medulla separate in like manner into two planes in the centre of the optic thalamus, and surround with a remarkable ring the ascending bundles of the pyramidal fibres. The superior plane of these fibres, the larger of the two, advances as far as the corpus striatum, is disengaged at the external part of this body and of the optic thalamus, and immediately bending upwards and inwards, forms the corpus callosum, the largest commissure of the brain. The lower plane, on the other hand, passing below the bundle of pyramidal fibres within and before the lateral part of the fissure of Bichat, gives rise first to the optic nerve, then a little further on to the olfactory nerve, and forms below the corpus striatum, internal to the fissure of Sylvius, behind the frontal lobe, and before and internal to the temporal lobe—a white space perforated with a great number of vascular holes symmetrically arranged, which Dr. Foville denominates the perforated quadrangle.

It will be seen that the arrangement of the fibres of the crura differs considerably from that described in the memoir of 1825, when the author supposed that beyond the corpus striatum the crura separated into three planes, an internal, a superior, and an inferior one. Fifteen years of additional study and research afford strong presumptive evidence in favour of the correctness of his most recent view of the subject.

The perforated quadrangle just mentioned as being connected with the fibrous emanation from the posterior bundles of the medulla, and which is "the only fibrous part of the external surface of the brain," is taken by Dr. Foville as a starting point for the description of certain remarkable cycles of fibres, the curious disposition of which had been previously noticed by Professor Gerdy. Besides that there is considerable difference in the details of these parts, as considered by these two anatomists, it cannot but be supposed that each has the merit of discovering them independently of the labours of the other. We have reason to believe that Dr. Foville's candour and openness in the explanation of his views and discoveries to his professional brethren in Paris have led, on one or two occasions, to their publication by parties who, without understanding them, have been willing to pass them off as their own. In the present case, however, such a supposition is totally untenable. Dr. Foville thus enumerates these fibrous circles, all of them being connected at each end with the perforated quadrangle, and consequently with the posterior bundles of the spinal marrow.

"Setting off from the crus, the first of these parts is the white superficial covering of the optic thalamus, the fibres of which are circular.

"The second is the *tænia semicircularis*, incomplete as a ring when considered alone, but completed by the quadrangle with which it directly unites in front, whilst behind it joins the great tuberosity of the convolution of the cornu Ammonis attached to the external part of the superficial quadrangle.

"Third, the corpus striatum itself forms, by its gray matter alone, a complete circle, or rather an

ellipse, the inferior extra-ventricular part of which is covered by the perforated quadrangle.

"Fourth, to the outer side of the corpus striatum there is a fibrous circle, which surrounds it as the *tænia semicircularis* compasses the optic thalamus: so far as I know, this fibrous ring has not hitherto been described.

"Fifth, the corpus fimbriatum, and the corresponding half of the fornix, form likewise a complete circle with the fibrous layer of the fissure of Sylvius. In the sixth place would come the white band of the border.

"In the seventh and last place, the two little bands situated upon the corpus callosum, close to the median line, terminate, like all the preceding parts, at the anterior and posterior limits of the white perforated surface internal to the fissure of Sylvius.

The white band of the border, which, from the peculiarity of its position and connexions, Dr. Foville has designated "the border," and the cerebral convolution developed upon it "the convolution of the border," commences, like the other fibrous circles, at the anterior margin of the perforated quadrangle, where it is also connected with the base of the convolution of the olfactory nerve, winds along the side of the corpus callosum, and, following its entire extent, returns to the tuberosity on the external edge of the perforated quadrangle.

All the parts which we have now been engaged in tracing being connected with the perforated quadrangle, and through it with the posterior bundles of the spinal marrow, all those convolutions which are in immediate relation with the former, must, consequently, be also in relation with the latter, and must hence be devoted to the offices of sensation. One of the most striking and important discoveries of Dr. Foville consists in showing which these are, and in defining the limits between those convolutions connected with the posterior, and these with the anterior columns of the spinal marrow, thus reducing to order and beauty what before had seemed a mass of confusion. He says:

"Considered in reference to the different connexion of their fibrous parts, the convolutions may be distinguished into two principal classes. First, those clothing the prolongation in the brain of the fibrous bands connected with the olfactory lobes, optic nerves, and posterior parts of the medulla spinalis; and, second, those enveloping the cerebral terminations of the pyramidal fasciculus of the crus.

To be continued.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, APRIL 17, 1841.

THE progressive and rapid advance in the acquirement of knowledge of all kinds, renders it a matter of necessity that every means should be adopted for the arrangement and concentration of

that which has already been collected. At the same time, continued observation and more extended investigations are called for, to supply the defects, to clear up the obscurities, or to correct the imperfections, which are rendered manifest at every fresh accession to the facts of science. No department of knowledge requires more of this supervision than that which relates to the study of man. Considered as an organized being, he is subject to various physical and chemical agencies. These forces, however, exert not over the living organization, and, consequently over the human frame, endowed with life, the same power as they do over dead or inert matter. What this mysterious principle, which controls and often counteracts those forces, to which inorganic and dead organized matters are subject, may be we know not. Its effects are as apparent as those of gravitation or affinity, but when we term it life, we have attained to no real knowledge of its essence or nature. In this respect, however, medicine, that is, physiology and pathology, is on a level with physics and chemistry. The terms gravitation and affinity, considered apart from certain physical phenomena, convey no ideas of the nature of the forces which they are intended to denote. One at least of these terms, affinity, is derived from, probably, the false application of a metaphor, and the other is rather expressive of a leading effect, than of the force by which that effect is produced.

The primary idea formed of the principle which we term life, if we are to judge by the Hebrew, Greek, and Latin words for it, is vigour, or strength; but this also expresses rather an effect, than the cause from which that and all other effects produced by the same principle take their origin. The present advanced state of physical and chemical science has, however, been mainly attained by the well-directed study of effects, and many of the laws under which these effects are developed have been defined and elucidated. In like manner, it is for the medical philosopher to study effects, or the workings of the principle which he calls life, to collect the observations which the industry of ages has accumulated, to arrange and compare these, to sift the wheat from the chaff, rejecting all such as are insufficient, biassed, or otherwise incorrect, retaining and classifying those which are worthy of preservation. Were such a work faithfully and judiciously accomplished, much valuable matter, the work of centuries, at present lost to all purposes of utility, or buried in the mass of error with which it is involved, might be rescued and become available in the generalization of observations and the establishment of correct principles. Medicine, which now presents a hetero-

geneous and confused assortment of so-called facts intermingled with and vitiated by the remains of crude speculations, hypothetical fancies, and broken-down theories, would at once take a high station amongst the natural sciences. The knowledge of that which is really worthy of attention would be more readily acquired, because extricated from the dead weight of error by which it is now encumbered, and more easily retained in the memory, as well from its simplicity as from its accordance with intellectual truth. The foundation also for future researches would be securely laid, and a profitable direction given for such researches, in pointing out the deficiencies of information which exist and require to be supplied in any particular department. The numerous and excellent schools of medicine, and institutions for the cultivation of natural history, now to be found in the metropolis, and in many provincial towns, afford opportunities for increasing our knowledge of the minute organization of the animal body, for the study of comparative anatomy, for investigations into progressive development, for researches upon organic chemistry, and upon the microscopic characters of the tissues and fluids. These are objects which may be advantageously combined with the more specific designs of the institutions alluded to. In the same manner the advance of pathology might keep pace with that of physiology, were the metropolitan and county hospitals made available, as they ought to be, for the public service. The number of cases of disease which are annually treated within, or in connexion with these establishments, is very great, and there are few of them in which a record is not kept of the name, age, and occupation of the patients, the diseases under which they labour, the dates of admission and of discharge, and the event or termination of the case when dismissed from the institution. Were only this amount of information regularly given at stated periods in some convenient and established form, as, for instance, that adopted by Mr. Farr in the Registrar-general's reports, it would afford materials for the elucidation of many points of statistical inquiry of great value. Among these are the laws of Epidemics, the effects of local peculiarities in the generation or modification of disease, the comparative mortality of disease under different circumstances, the influence of occupation both in the production of disease, and upon the mortality, &c. &c. Records drawn up after this method might be readily supplied with the expenditure of a very small portion of time and labour; but were these records accompanied by remarks upon the leading features or peculiarities of the cases admitted, and, where points of practice are con-

cerned, upon the treatment adopted, they would be materially enhanced in value to the statistical inquirer, and at the same time become of great practical utility to the profession at large. We feel assured, from some experience in these inquiries, that could the medical officers of our infirmaries and dispensaries be persuaded to take upon themselves the task of drawing up periodical reports of their practice in the institutions to which they are attached, they would find themselves amply repaid for the labour bestowed in the retrospective benefit which they would themselves derive. Those who are not in the habit of noting, and from time to time comparing the results of practice, have little idea of the precision and certainty which may in this way be attained on many points of doubt or difficulty. A striking case, in which unlooked-for, and possibly accidental, success attends a particular plan of treatment, has a tendency to produce an exaggerated impression on the mind. A similar plan, varying of course in its details, is perhaps adopted in every case which approaches to this one prominent instance, for weeks or months afterwards, and it requires a good deal of practical experience, reflection, and discrimination, before the impression caused by the successful instance is reduced to its just value. The same or a corresponding result may attend a case, the termination of which has been less fortunate, and a valuable remedy or a judicious method of treatment for a certain disease, or class of affections, falls into disrepute, and is perhaps altogether laid aside for some other of less real efficacy. The habit of noting, arranging, and comparing cases, corrects this tendency to error, by preserving a record of practice more faithful than that derived from memory alone, and provides a standard by which the undue strength of present or recent impressions may be brought down, and isolated or individual facts receive no more than their just measure of consideration. In making these remarks, we would not be thought to advocate a system of mere counting, or the blind adoption of a numerical estimate of the powers and applications of remedies. With every disposition to admit the value and importance of the labours of M. Louis, and of the numerical method of illustration adopted by him, we cannot think this method to be generally fitted for directing the treatment of any individual case. When the general fact is announced, that a certain percentage of cases of scabies will be cured by sulphur, of the venereal disease by mercury, and of bronchocele by iodine, it by no means follows that the individual case of the disease referred to, presented for treatment, is to be subjected to the percentage allowance of iodine, of mercury, or of sulphur. The

problem of treatment is too complicated to be thus solved, and we question whether any practitioner ever yet witnessed two instances of disease, which, from their commencement to their termination, did not present some marked points of difference, or whether any but the mere routinist ever pursued exactly the same treatment in regard to the nature, dose, and quantity of the remedies employed in any two of the cases coming under his management. Each case of disease presents a distinct and peculiar condition of the animal frame in which it appears, and however it may resemble certain other cases in its general features, will yet be found to present its own individual characteristics. Further, no case of disease presents precisely the same aspect on different days, or at different hours of the same day. Where, then, is the advantage, it may be asked, to be derived from the narration of cases, or from the establishing of indications and laying down rules of treatment? Simply in the development of the general principles upon which diseases should be treated, and in the pointing out of methods which may be fitted to guide and assist; though they cannot direct the practitioner in his treatment of any individual case. Were our means of observation more perfect, our estimate of the force and peculiarities of the general constitution more true, our perception of the actual state of the organs, tissues, and fluids, with their functional aberrations, more definite, and our knowledge of the powers and adaptation of remedies more extensive and accurate; it would then be found, that for every separate instance of disease which admits of cure or of alleviation, and for every stage of its progress, the application of the appropriate remedial agent, to produce the best effect, must be made at a certain definite period, and in a certain definite dose. Imperfection of knowledge in any of these points is followed by a corresponding uncertainty in the indications of treatment, and an extension of the extreme limits between which errors of practice will be liable to occur. Every accession, therefore, to our means of close and accurate diagnosis, whether by increasing our knowledge of the constitutional powers and peculiarities, or our perception of what is going on in the inmost recesses of our organization—every addition to our list of remedies—every improvement in the methods of applying them, or in estimating and defining their powers and modes of action, tends to reduce the limits of error, and in a corresponding degree to direct practical benefit. It is in this point of view that the publication of cases occurring in hospital practice becomes especially desirable. The means of appliance are in these situations readily accessible, the patients under direct observation and control, and the effects of remedies can be better

appreciated, because the medical officer may assure himself that they are regularly and efficiently administered, and because he can prevent the employment of other means, medicinal or dietetic, which might complicate or counteract their operation. He is also less subject to misrepresentation, and, from his responsibilities being shared by his colleagues, can often have recourse to methods which, under other circumstances, would be inadmissible. Many of the most valuable contributions to the sum of medical knowledge have emanated from hospital practice; as the works of Lawrence and Cooper, of Andral, Louis, Bright, Carswell, and many others, will certify. Let the many intelligent physicians and surgeons, who now preside over these institutions, contribute also the results of their experience, and thus extend the benefits which they are daily conferring. "Homines enim ad Deos nulla re propius accedunt, quam salutem hominibus dando. Nihil habet nec fortuna tua majus, quam ut posses; nec natura tua melius quam ut velis servare quamplurimos." The field before them is extensive, the labourers are numerous and able, the harvest to be gathered rich and abundant, the fruits of it eagerly desired, and in the highest degree beneficial to mankind. What then is wanting but the will on the part of the appointed labourers to cultivate and to reap that which will render unto themselves a sure return, corresponding to the ability and assiduity which they bring to the task?

As the terms of an advertisement which appeared on the cover of last week's Journal may give rise to some misunderstanding, we beg to inform our readers, that Mr. Cooper has merely given permission to a confidential friend to select some cases from the note-book of the late Sir Astley Cooper, which may seem suited for the pages of a weekly Journal, and is in no other way responsible for them. The crumbs from underneath the table of Sir Astley Cooper would be, to us, a feast.

REVIEWS.

A Treatise on the Sympathetic Relation between the Stomach and Brain, &c., in the Causation and Cure of Diseases. By CHARLES WIGHTMAN, M.D. &c. Simpkin and Marshall, London, 1841. 8vo. pp. 192.

In the treatise now before us, Dr. Wightman endeavours to penetrate one of the most obscure points in the history of sympathies, viz. the relative influences of the nervous and digestive organs on each other during disease.

The author commences with some general observations on the sympathetic relations between the brain and the stomach, and then illustrates his observations by referring to injuries of the head, blows over the stomach, typhus fever, apoplexy, and some other diseases of the brain. We have in vain searched the pages of Dr. Wightman's treatise for some novel views which we might extract for the benefit of our readers, but found nothing more than a systematic detail of generally-received opinions on the sympathetic connexions between the brain and stomach. The author's work may therefore serve as a useful manual to practitioners, and for this purpose was it, apparently, written; but in following too closely the doctrines and speculations of antecedent writers, Dr. Wightman seems to have adopted views which, we think, further reflection would have induced him to reject. Thus Dr. Wightman seems to lean towards the doctrine of the abdominal origin of the disease called acute hydrocephalus, yet here the disorder of the primæ viæ is manifestly sympathetic. The obstinate constipation which so frequently attends organic disease of the brain, does not accompany any other infantile affection; the pain in the region of the stomach is a *cutaneous* pain, and is, we believe, almost always attended by a morbid sensibility of some other portion of the integuments which points to the nervous origin of the evil; in a word, we think that here, as in many other cases, sympathetic symptoms might be distinguished from those resulting directly from organic change, if medical men would deign to follow the accuracy of a Louis, and note *all* the circumstances (however insignificant some may appear to be) of each disease which falls under their notice.

A Practical Treatise on the Venereal Disease, founded on Six Lectures on the subject, with Plates. By F. C. SKEY, &c. Churchill, London. 1841. 8vo. pp. 192.

ONE of the latest "dodges" (we crave pardon for using the word) connected with the art of book-making, is to deliver a few lectures on a specialty at some hospital or school of medicine; to publish them in a periodical; and to reprint them with preface from the pen of the author, and illustrations from the pallet of some house-painter, under the imposing form of a "Practical Treatise." The mountain is then delivered, and the "ridiculus mus" born. We do not offer this as a sketch of the nativity of Mr. Skey's treatise, although it might pass for one in default of better, but we cannot refrain from expressing our opinion, that a more "lame and impotent" treatise on an import-

ant subject has not, within our memory, issued from the pen of one who fills the office of assistant surgeon to a leading metropolitan hospital, and of lecturer on surgery at a respectable school of medicine.

In the first line of his preface, Mr. Skey shows an ignorance of what we might term "polite medical literature," by designating Mr. Carmichael of Dublin, Sir R. Carmichael. The name of that distinguished surgeon is so familiar to every one, and has of late been so frequently placed before the public, in connexion with Medical Reform, that we are at a loss to understand how Mr. Skey could have been guilty of such a blunder, and still less can we understand why Mr. Skey should make distinct persons of Mr. Carmichael and Sir R. Carmichael.

But if Mr. Skey be addicted to unnecessary distinctions about names, he is evidently careless in his discrimination of things. Venereal sores are considered by Mr. Skey to occupy, almost invariably, the external organs of generation, and hence he seems to have neglected altogether to investigate the condition of the walls of the vagina or the neck of the uterus. This detracts very materially from the value of his deductions, and reduces the "Practical Treatise" to a collection of cases.

NEWCASTLE ON TYNE INFIRMARY.

PRACTICE OF MR. GREENHOW.

STRANGULATED HERNIA.

(Reported by Mr. WATSON.)

FRANCIS COPPIN, æt. twenty-one. Admitted April 2, 1841, labouring under symptoms of strangulated hernia. He states that about six months ago, whilst using some violent exertion, the bowel suddenly protruded, and he felt considerable pain in the abdomen, with great sickness. The hernia was at that time returned after some difficulty, and he has since continued in good health, but has never worn a truss. This morning, whilst employed in pulling at a heavy rope, having a considerable weight attached to it, the bowel again escaped, and the swelling in the scrotum became larger than it had ever been before; he also felt great pain in the abdomen. A surgeon having for some time employed the taxis without effect, he was sent to the infirmary, where he was admitted about three o'clock. On admission the following symptoms presented themselves:—a hard but not very large tumor could be felt in the right side of the scrotum, tense, and very painful on pressure; there was considerable tenderness over the whole, but particularly the lower part of the abdomen, which was increased by pressure; his countenance was anxious and depressed; he complained of sickness, but had not vomited; obstinate constipation; pulse quick and jerking; tongue very foul, and loaded with a brown fur. He was bled and placed in the warm bath, when the taxis was again

employed, but without success. He was then ordered to have an injection of infusion of senna and sulphate of magnesia, from which he had a copious stool, but still the intestine could not be reduced. A tobacco enema was then administered, and while he was suffering under its depressing influence, the taxis was again employed, but with no better success than before. He was then carried into the operating room, and Mr. Greenhow immediately proceeded to the operation. After cutting through the usual coverings of an inguinal hernia, the tunica vaginalis testis was exposed, which proved to be the sac, and on opening it a considerable quantity of yellowish serous fluid escaped, and a large portion of intestine was exposed, of a dark, plum-coloured, congested appearance, at the inferior and lower part of which the testis was found lying; the stricture was then felt for, and a flat director being introduced, was, with some difficulty, divided by means of Cooper's knife; the intestine was then returned, and the external wound brought together by means of the interrupted suture with adhesive plaster, and the patient was carried back to bed. He felt considerably relieved by the operation, and the sickness gradually abated. Ordered to have calomel and comp. colocynth pill, of each five grains, in two pills, at once; with some castor oil. To have the injections, if necessary.

3. Has had a good deal of sleep during the night; bowels have been freely opened; complains of pain in the abdomen, particularly in the right lumbar region; no sickness; has taken some food; pulse 132; tongue cleaner. Repeat the castor oil, and apply warm fomentations to the abdomen frequently. *Vespere*, much pain and tenderness of abdomen; bowels have not acted since morning; pulse quick and full. Venesection; fomentations; calomel and colocynth at once; enema and castor oil.

4. Very restless; has vomited a great deal; much pain and tenderness of abdomen, with great hardness; bowels have been freely opened; tongue furred. Repeat the bleeding; eighteen leeches to the abdomen; effervescing draught frequently; calomel, five grains; opium, one grain, every third hour. An emollient enema, with half an ounce of castor oil, every fourth hour. 4. P.M. Bowels again freely opened; has vomited once since morning; does not complain so much of pain; abdomen not so hard, but still very tense; countenance much sunken and pallid; pulse very rapid and feeble. Continue the pills and effervescing draught; repeat the enema in the evening. To have brandy and sago, if necessary. At half-past seven he died.

Sectio cadaveris fifteen hours after death.

Great rigidity of the whole body; abdomen very hard and tumid. On laying open the cavity of the abdomen, it was found to contain a great quantity of coagulated blood and serum, the greatest part of which was in the right iliac fossa, although there was also a considerable quantity in the left side; the peritoneum lining the walls of the abdomen, and also that portion covering the several viscera, were very much inflamed, and a quantity of coagulable lymph was effused, forming soft adhesions between the different portions of the intestinal tube; the peritoneal coat of the stomach was also intensely inflamed; the great omentum was

found in a highly-inflamed state, and between its layers was a quantity of coagulated blood, which appeared to have come from one of its arteries which was found open; the blood found in the cavity of the abdomen appeared to have proceeded from a large ulcer on that portion of intestine which had been strangulated, (and which proved to be the lower portion of the ilium just at its junction with the cœcum,) laying open several of its vessels, and completely perforating the intestine; some of the blood also appeared to have come from a part of the intestine farther up the tube, in a way almost similar to a transudation through its coats, as no distinct orifices of vessels could be discovered, nor any mark of ulceration; but the dark colour of these portions of intestine and the adhesion of a quantity of coagulum to their surfaces, sufficiently proved that they had been the source of some of the hæmorrhage. The epigastric artery was quite safe, and the internal ring had not been cut at all; the stricture was found to have been situated within the inguinal canal at a short distance from the internal ring. The liver was small, and appeared very pale and unhealthy; the testis of the right side was much less than the one of the opposite side, and also much softer; it was also situated much nearer the external ring; the internal ring was quite pervious, and did not appear to have ever been united.

From the circumstances above mentioned, viz. the open state of the internal ring, and the situation of the testis, Mr. Greenhow was induced to suppose that the testis of the right side had never descended into the scrotum till the day the hernia became strangulated, but being then forced out of the abdomen by the violent exertion the patient had been using, had opened a passage for the bowel, by which it could not be returned, and consequently strangulation necessarily followed.

CONFERENCE ON MEDICAL REFORM.

Third Meeting of the Delegates, Saturday, February, 6, 1841.

Dr. MACARTNEY, F.R.S., in the chair.

Present—*Provincial*, Dr. Macartney, Dr. Forbes, Mr. Ceely, Mr. Wickham, Dr. H. Green.

British, Dr. Webster, Dr. Hall, Mr. Evans, Mr. Davidson, Dr. R. D. Thomson.

North of England, Mr. Carter.

Cornwall, Mr. Grainger.

Glasgow, Mr. Farr.

The minutes of the last meeting were read and confirmed.

Dr. Webster read a letter from Dr. Barlow, explaining the reason of that gentleman's absence from the conference; and one from Dr. Miller, secretary of the Glasgow Medical Association, delegating to him power to act, or to appoint another person to act, as a delegate from that body in this conference. The members of the Glasgow Association, Dr. Miller states, *entirely* disapprove of Mr. Warburton's Bill. The Bill of Mr. Hawes they think much better suited to the wants of the profession, although defective in many important points, and that of Dr. Webster as well calculated to improve and elevate the condition of the profession.

Dr. Webster, in pursuance of the authority vested in him, nominated Wm. Farr, Esq., to act as delegate of the Glasgow Medical Association.

Mr. Grainger stated, that being compelled to leave town for a few days, he had obtained the consent of the Cornwall Medical Association to substitute his colleague, Mr. Pilcher, as their delegate.

After some discussion, wherein the delegates expressed their opinion as to the importance of the same gentleman continuing to officiate for the body by which he was deputed during the whole of the proceedings, it was agreed that Mr. Pilcher was at liberty to represent the Cornwall Association.

The Secretary read a letter addressed to the chairman by Dr. Cowan of Reading, apologizing for his absence, and stating his impression that it was most improbable that Parliament would seriously entertain any system of reform independent of, and unsanctioned by, the corporations, and that the co-operation of these bodies should be sought in framing a plan of reform.

Mr. Carter observed, he had always understood that one of the duties of this conference would be to confer with the corporations, and endeavour to procure the co-operation of those bodies in the accomplishment of medical reform.

Dr. Macartney, Dr. Webster, and others, coincided in this view.

A discussion ensued respecting the next general principle of reform which should be considered.

Mr. Wickham thought the constitution of the governing bodies should come next in order.

Dr. Forbes moved, and Mr. Davidson seconded, the adoption of the following resolution:—

"That in the opinion of this meeting the incorporated body of the profession in each kingdom should elect a governing council."

Dr. Macartney thought the elective franchise should be confined to qualified practitioners of ten years' standing.

Mr. Wickham was of opinion that some such limitation should exist.

Dr. Forbes consented to modify his motion to the following:—

"That a council shall be elected periodically, in each division of the United Kingdom, from and by the incorporated members of the profession resident therein."

Mr. Davidson seconded the motion.

Dr. Macartney thought no one should be elected who did not possess a diploma or degree.

It was remarked, that such a provision would exclude persons who were in practice before the year 1815.

Dr. Webster thought the councillors should be men of at least ten years' standing in the profession.

Mr. Carter said, the qualification of electors had yet to be considered; it would be fixed before any election took place; he agreed with Dr. Webster's remark.

The motion was put and agreed to.

Dr. Marshall Hall read a letter which he purposed addressing to Sir R. Peel on medical reform.

Mr. Wickham thought the qualification for a degree, as well as that for a license, should be fixed by the councils, and that the examination for honours should be conducted by those bodies; the

degree itself might be conferred by such university or college as the candidate might prefer.

Dr. Webster thought the suggestion was deserving of consideration.

Mr. Davidson suggested that the written opinions of the council of the British Medical Association, on the formation and functions of a senate, might now be read.

Mr. Wickham thought that until the functions of the council were determined, there could be no adequate means of knowing whether or not a senate might be required.

Dr. Forbes thought that uniformity of operation between the three divisions of the kingdom could not be secured without a senate.

Dr. Webster stated, that the senate might be looked upon either as a body representing the councils, a kind of delegation, or as an executive body. If viewed in the former light, the British Association had considered that one delegate from each council would be sufficient, but that more would be requisite if the senate were entrusted with power to make by-laws, &c.

Dr. Forbes thought it would be unnecessary at the present moment to decide between the two plans.

Mr. Wickham moved, "That in the opinion of this conference it is expedient that a senate should be formed."

Dr. M. Hall seconded the motion, which was unanimously agreed to.

It was considered that the leading principles of reform had now been settled.

Dr. Webster, at the request of the meeting, read the suggestions of the council of the British Medical Association as to a Medical Reform Bill.

It was resolved, that the next meeting be held on Thursday, at three o'clock P.M.

Fourth Meeting of the Delegates, Monday, February 8, 1841.

Dr. Macartney, F.R.S., in the chair.

Present—*Provincial*, Dr. Macartney, Dr. Forbes, Dr. Green, Mr. Ceely.

British, Mr. Davidson, Mr. Evans, Dr. R. D. Thomson; Dr. Marshall Hall, Dr. Webster, Dr. Grant.

North of England, Mr. Carter.

Cornwall, Mr. Pilcher.

Glasgow, Mr. Farr.

Gloucestershire, Mr. H. W. Rumsey.

The minutes of the last meeting were read and confirmed.

Mr. H. W. Rumsey appeared as deputy from the Gloucestershire Medical Association, and read a series of resolutions passed by that body respecting medical reform.

Mr. Carter proposed that, in the opinion of this conference, uniform arrangements should be enforced throughout the United Kingdom with regard to medical education.

Dr. Green seconded the motion.

Dr. Marshall Hall and Mr. Farr opposed it; a uniform test of qualification was all that should be required; each educating body should make its own regulation with respect to education.

Mr. Davidson opposed the motion.

Mr. Rumsey thought the question might be more advantageously considered at a future time.

Drs. Macartney and Forbes were in favour of specified educational arrangements.

At the instigation of Dr. Hall, the motion was thus modified:—

"That this conference thinks it desirable that uniform arrangements should subsist in respect to medical education throughout Great Britain and Ireland."

This resolution was agreed to.

A letter was read from Mr. Wickham, suggesting that conferences should be held with the corporations, which bodies he would comprehend in any new scheme of medical polity. Mr. W. thinks they should be supported by the fees payable hereafter for diplomas.

Dr. Green proposed, "That, in the opinion of this meeting, it is expedient that existing medical institutions be respected, provided their existence can be rendered compatible with uniformity of qualification, equality of privileges to practise medicine, and a fair system of representative government."

Mr. Carter could have no objection to second the motion, seeing that it was not inconsistent with the views already adopted by the conference.

Dr. Webster thought it unnecessary, at the present moment, to take cognisance of any existing corporation: the delegates should proceed with their own plans of reform, and afterwards confer with the colleges and other bodies.

Dr. Forbes thought the motion was harmless, but would come with greater propriety at a more advanced stage of the proceedings.

Mr. Farr and Mr. Davidson thought the present corporations should no longer possess the power to license practitioners; their arrangements relative to internal self-government would not be interfered with.

Dr. Marshall Hall moved an amendment, which was seconded by Mr. Davidson:—"That this conference respects, in the fullest manner, all existing institutions, as far as this is compatible with incorporation of the whole profession, on the principle of representation, uniformity (tested by examination) of qualification of privileges, rights, and immunities."

The amendment was carried, Dr. Green, the Chairman, and Mr. Carter voting for the original proposition.

Dr. Webster proposed, and Dr. Forbes seconded, the motion,—

(5.) *"That no unlicensed person should hereafter, in the opinion of this conference, practise medicine without being subjected to a penalty."*

This was unanimously carried.

Mr. Carter proposed, and Mr. Farr seconded, the motion,—

(6.) *"That a registry should be kept of all persons who should receive a license to practise medicine."*

A discussion then took place relative to chemists and druggists, and as to the propriety of including any regulations bearing upon them in a Medical Bill.

Dr. Webster thought that some representation should be made of the present want of adequate control over chemists and druggists.

Dr. Marshall Hall thought the subject should be entirely excluded from a Medical Bill.

Dr. Forbes thought it should be noticed by this conference.

Mr. Farr and Dr. Thomson expressed a similar opinion.

Mr. Carter, impressed with the importance of this subject, would propose,—

(7.) *"That, in the opinion of this conference, it is highly necessary to the public health, that measures should be taken by the Legislature to secure a proper superintendence over the trade of chemists and druggists, as by license and registration, and by such other means as Parliament should think proper to adopt."*

Dr. R. D. Thomson seconded the motion, which, after some remarks in support of it from Dr. Webster, was unanimously passed.

The Secretary then commenced reading the suggestions of the British Medical Association respecting the incorporation of the profession.

On the motion of Mr. Farr, seconded by Mr. Davidson, Provision 1 was agreed to, after a short discussion as to the admission of qualified quacks into the electoral body.

Dr. Macartney protested against the admission of practitioners keeping open shops for the sale of medicine.

Provision 2 of the heads of Bill was agreed upon.*

Dr. Macartney having left the chair, Dr. Forbes was requested to preside.

Provision 3 being read, the number of councillors for each county was reserved for future consideration.

Provision 4. Election of a president was carried.

Provision 5. The senate.

Dr. Forbes thought there should be an educating body distinct from the governing councils. He read a statement of his views upon the formation of a new educational establishment, to which he would confide the making of regulations for education, and the granting of a primary grade in medicine. The medical councils would still have power to examine all persons applying for their license, and the universities might grant degrees as heretofore.†

Dr. M. Hall insisted on an election of the senate by the councils; it was necessary there should be a connexion between the two.

Dr. R. Dundas Thomson thought Dr. Forbes's observations were most valuable, but they involved questions which could not be considered at present; he thought that the senate ought to consist of delegates from the councils.

The Chairman begged that gentlemen would state their views respecting the construction of the examining boards for licentiates to practise medicine.

Mr. Farr moved, and Dr. Thomson seconded, "That the councils should appoint the examining boards, one half of which should consist of persons chosen by concours, the remainder of members of the councils."

Mr. Carter proposed as an amendment, "That there should be one examining board appointed in each capital of the United Kingdom." As the conference had determined to invite interviews with the corporations, he thought it was by no means necessary that its members should pledge them-

selves to the manner in which such boards should be formed. They might, at this time, adopt the principle that there should be one board in each capital, without specifying by whom it should be chosen, until after the opinions of the corporations should become known, for they might possibly suggest some plan which, while it would give effect to the principle of having but three boards, would not deprive the corporations of all share in their construction.

Professor Kidd was an advocate of one board in each capital, but he had suggested that each of the present examining bodies should be represented therein; one-half of the board being nominated by them, the other by the profession at large, or, in other words, by its representative governing council. It would be time enough to pass a resolution similar to the one proposed by Mr. Farr, when it was found that the corporate bodies would not co-operate with the conference in giving effect to their principles. It was possible that a participation in the appointment of examiners, and a share in the fees of persons examined, would obviate the hostility of existing corporations to a new system of medical government.

Mr. Ceely seconded the amendment.

Dr. Webster remarked, that if the corporations were to participate in the formation of the boards for examining licentiates to practise, they would no longer be looked upon as honorary establishments. He thought the conference should proceed with its plans irrespective of existing bodies; the views of the former might be modified after consulting with the latter.

Dr. Grant spoke at great length in favour of conciliation being exercised towards old establishments, whilst endeavouring to construct new ones. Reform, to be safe, should be gradual—the co-operation of existing bodies should be sought. We wanted reform, not revolution; the corporate institutions should, if possible, be amalgamated, and should enter into the formation of the examining boards. The latter should be wholly distinct from instructional establishments. He did not think the concours was likely to answer in the case of examiners, although he could conceive nothing more intensely calculated to promote ambition among rising medical men than the competition by concours now proposed.

Mr. Farr consented to propose his motion without the latter clause, and moved, "That the examiners should be appointed by the councils."

Dr. Thomson concurred, and seconded the motion.

Dr. Macartney thought there should be one board of examiners for the three countries. The examinations should be conducted before assessors, who should decide on the validity of the candidate, the examiners simply conducting the inquiries into his qualifications.

Dr. Webster supported the motion: on being put, there appeared—

<i>For the motion.</i>	<i>For the amendment.</i>
Dr. Forbes.	Mr. Ceely.
Dr. Webster.	Mr. Carter.
Dr. Hall.	
Dr. Thomson.	
Dr. Farr.	
Mr. Davidson.	

Dr. Grant, after some explanation, supported the motion.

* These are the clauses of Dr. Webster's bill to which we have frequently alluded. It seems passing strange that their provisions should not have been made known to the public by the committee of the conference. Had we foreseen that suppressions of this kind were to take place, we should have declined altogether publishing any portion of the proceedings of the conference.—Eds.

† Published in the Provincial Journal, No. 24.

Dr. Macartney protested against both.

It was then proposed that two classes of examiners should be chosen: the *permanent* or *resident* examiners, and the non-resident; the former to be chosen by concours, the latter by the councils.

Mr. Farr explained that the former would be wholly occupied in their vocation, and would not be allowed to engage in other duties. They would be a consulting board in matters relating to public health, as in the testing of poisons, in questions of medical jurisprudence, &c.

Dr. Grant could not perceive the necessity of disconnecting the examiners from other employments than those specified. They would be more likely to be qualified for their office by a life of active employment, as in teaching, than by one of the character in question.

Dr. M. Hall thought they would have occupation enough.

Dr. Macartney thought the concours would form a bad corps of examiners. He could not see why one part of the board should be chosen differently from the other.

Dr. R. D. Thomson supported the appointment of examiners, by concours, in a long speech.

Dr. Webster alluded to the University of London, in exemplification of the present system of appointing examiners. The concours would have provided a more efficient board.

Dr. Forbes said, the fault was owing to the mode in which the senate of the university was appointed; they were irresponsible, and they chose examiners from their own body. Such would not be the case under a representative form of government.

Mr. Carter thought it might be left to a representative council to settle its own mode of appointing its examiners. The conference need not decide the question.

Dr. Webster thought the principle of the "concours" should be acknowledged; and it having been proposed that *part* of the examiners should be chosen by concours, there appeared

<i>For the motion.</i>	<i>Against.</i>
Dr. Webster.	Dr. Grant.
Dr. Hall.	Dr. Forbes.
Dr. Thomson.	Dr. Macartney.
Mr. Farr.	Mr. Ceely.
Dr. Davidson.	Mr. Carter.

Dr. Forbes thought the concours decidedly applicable to the case of lecturers, but not of examiners; it was also well adapted to young men at college, but would not be submitted to by persons established as first-rate practitioners; they would fear that their reputation might be injured by defeat: there were many qualifications for an examiner which the concours could not ascertain, such as temper, judgment, &c. He did not think this method was suited to this country.

The meeting was adjourned until Tuesday, at a quarter before four o'clock.

FOREIGN MEDICAL LITERATURE.

CLINICAL REMARKS ON AMAUROSIS.

BY M. PETREQUIN.

M. PETREQUIN, surgeon to the Hotel-Dieu of Lyons, has published some practical observations

on amaurosis, in the "Annals of the Society of Bruges." The author distinguishes several species of amaurosis, and applies to each a peculiar mode of treatment.

The first species of amaurosis described by the author is the *asthenic nervous* form; it is the simplest, but not the most common species; is usually met with in weak or debilitated persons, and is caused by the prolonged action of light, by distress, age, narcotics; in a word, by any debilitating agency, either local or general. The progress of the disease is slow, and it is unattended with pain; the sight gradually gives way: there is a sensation of cloudiness with dilatation of the pupil, and diminished contractility of the iris, dulness of countenance, &c., but without any symptoms of irritation or congestion. Although writers generally agree in regarding this as a dangerous form of amaurosis, the author assures us that he has employed the following means with very great success: 1st. Strengthening diet, with preparations of iron, bark, &c.; 2nd. Stimulating frictions with the tincture of nux vomica; aromatic fumes, blisters on the forehead, dressed with strychnine; electricity, &c.

M. Petrequin always applies strychnine by the endermic method. He excites a blister by means of the ammoniacal paste; then removes the epidermis, and powders the surface with a mixture of strychnine and any convenient vehicle. He has also found it advantageous to rub the temples and forehead with an alcoholic tincture of nux vomica, prepared by treating four ounces of the nux with a quart of brandy. The author relates three cases of asthenic amaurosis cured by the above means. In the last, which depended on a general state of debility, the patient was cured in twenty-six days, although he had been six months ill, and had tried without effect every other mode of treatment. Some cases of amaurosis produced by the action of lightning, and also cured in the same way, are related.

The second species of amaurosis, according to M. Petrequin, is the *verminous*. This form is rare, but the author cites some examples. In one case, that of a girl, twelve years of age, the loss of sight was restored under the use of vermifuge remedies. In recent cases the amaurosis disappears as soon as the worms are expelled; but, in others of longer standing, the disease persists for some time, although its cause has been removed. The author next examines *traumatic* amaurosis. This species is usually attended by congestion, and should be combated at first with antiphlogistics and derivatives. It may afterwards assume the characters of asthenic amaurosis, and must then be treated by the means already noticed. The following examples are given by the author.

A man, twenty years of age, fell from the first story of a house; he was taken up with loss of consciousness and of vision of the right eye, with partial paralysis. Local and general bleeding, purging, &c., were employed. A few days afterwards the man had completely recovered from the effects of his fall, but vision remained imperfect. As there was no symptom of irritation or congestion, Mr. Petrequin resolved on employing the tincture of nux vomica. The diplopia was soon removed, but the tincture had been all used, and its employment was suspended: the diplopia re-

turned, but was again removed by the same means, and in three days vision was completely restored.

A man was severely wounded during the blasting of a mine; among other injuries, the sight was completely gone. Antiphlogistic remedies were employed in the first instance, and on the fourteenth day after the accident, he was affected with complete amaurosis on the right side, but on the left with partial loss of vision only. Leeches were applied to the temples, and purgatives were freely administered, and he recovered in a few days. Another patient, also wounded while blasting, suffered from amaurosis during six weeks, when frictions with the tincture of nux vomica were employed with the best effects; but care was taken not to have recourse to the stimulant treatment, until all symptoms of congestion and irritation had disappeared.

SYRUP OF THE IODURET OF IRON.

As soon as a solution of the ioduret of iron is exposed to the air, a portion of the iron becomes oxydized, and a corresponding portion of the iodine is disengaged; water saturated with sugar prevents the oxydation of iron, and should be henceforward employed in preparations of ioduret of iron. M. Beral give the following formula:—

Simple syrup, 200 scruples, solution of ioduret of iron (equal parts,) 1 scruple: mix. Each teaspoonful contains a grain of solid iodine.—*Journ. de Chim. Med.*

UNIVERSITY OF DUBLIN.

We are informed in the Dublin Medical Press of last week, that the following letter and document have been *privately* distributed to the members of both Houses of Parliament:—

"SIR—I have the honour to submit to your consideration the foregoing statement, *agreed to by the Board of the University of Dublin, and the Professors of the School of Physic in Ireland.*—I have the honour to be your most obedient servant,

"FRANCIS BARKER, M.D.
Regr. to the Professors."

"Statement in reference to a draft of a bill to amend the laws relating to the medical profession in Great Britain and Ireland.

"The defects connected with the licensing of medical practitioners appear to consist in an undue facility of obtaining testimonials, whether the certificates of lectures, or the diplomas of colleges; whereby persons of very different grades of real qualification are presented to the public as if they were equally qualified.

"The remedy for this evil will be found, not in framing a schedule for the purpose of fixing the number or form of such testimonials as a test of medical education, but in adopting means to secure a due correspondence between such vouchers and the facts they profess to authenticate.

"It does not appear how this object would be furthered by either of the measures contained in the drafts of acts of parliament proposed by Mr. Warburton or Mr. Hawes. An indiscriminate registry of practitioners would rather

increase the evil, by presenting to the public, under the guise of similar professional attainments, persons possessed of widely varying degrees of education and professional skill.

"The constitution of a medical senate or council, elected by a profession of medicine, surgery, and pharmacy at large, would probably lead to similar results, from the preponderance among the electors of the more numerous and less qualified members of the profession, who would then be rendered its managers and rulers.

"In the School of Physic in Ireland, connected with the University of Trinity College, and the College of Physicians, under the act, 40th Geo. III., ample means of instruction are afforded in the different branches and practical departments of the profession. A liberal education accessory to the study of medicine; strict moral conduct; and the test of having passed a rigid final examination, are required of candidates previously to their obtaining degrees in medicine.

"The attention of the governors of this school has been directed, for many years, to improvements in the system of medical education, and plans likely to conduce to this end, without overburthening the student, or introducing mere nominal lectures and attendance, have been adopted.

"Another plan has been proposed—namely, that of appointing extra-university or extra-collegiate assessors to attend at the examinations of candidates for degrees or diplomas in universities or colleges. On this plan it should be remarked, that such assessors, if *not* of the medical profession, will be incompetent judges of the value of questions proposed, or answers given, at examination. On the other hand, if such assessors *are* members of the profession, they will not present any greater obstacle to insufficient examination than at present exists; the examiners in the School of Physic in Ireland, acting under the obligation of an oath, all experienced in the work of examination, and each of them operating as a check on the remainder.

"Finally, it would appear that any practicable improvement in the system of licensing practitioners is obtainable by extending the powers of existing bodies, rather than by instituting a system of untried and doubtful experiments, which must impose additional burthens on the public.

"It is also to be borne in mind, that the benefits likely to accrue from any proposed measure are not to be estimated by its being approved of by a majority of colleges or of medical practitioners. A system might prove injurious to the medical profession, and to the public at large, and yet be favourable to the interests of those colleges or practitioners. Even in such a case, it is probable that it might receive their approbation, and be sanctioned by their authority."

REPORT FROM THE APOTHECARIES' HALL OF IRELAND.

The governor and company of the Apothecaries' Hall of Ireland, coinciding in the opinion generally entertained that a change is required

in the constitution of the medical profession in these kingdoms, have taken the subject into their consideration, in the hope of contributing to the removal of some of the difficulties with which it is surrounded, and of laying the foundation of an effectual and salutary reform.

The governor and company have been for a long time desirous of a general amendment of the laws which regulate medical affairs; but, in consequence of the divisions which have hitherto prevailed among the different presiding bodies, they despaired of effecting any arrangement which would have been commensurate with the wants of the profession as a whole, and had to restrict their attention to such changes as appeared to be called for in their own department. Their views on this subject are embodied in the draft of a bill, which they are prepared to submit to the wisdom of the legislature, and with regard to the nature of which, all that is necessary here to be stated is, that it is in conformity with the principles which they now wish to promulgate as the basis of a more general measure, the period having at length arrived when, through the concurrence of the different medical corporations, a full and comprehensive reform may be expected.

The governor and company, in delivering their opinions on so important a subject, wish to premise, that while they give a ready assent to the faulty constitution of the existing corporations, they entirely disbelieve they have operated injuriously upon the public, or that they are incapable of adaptation to the wants of the profession; they must express their regret, therefore, that any bill should have been introduced into Parliament having for its object the superseding or annihilation of these institutions, which, with all their alleged imperfections, have sedulously administered to the wants of the people, and provided well educated practitioners in every department of the healing art; and it cannot be too much urged that the grievances complained of have reference principally to the well-being of the profession itself, and that the public are only interested in the changes sought, so far as they are calculated to engender a better spirit of co-operation and harmony in the medical community.

The governor and company, however, representing a numerical majority of the practitioners in Ireland, are not the less sensible of the magnitude of the interests at stake, or less disposed to aid in a consummation so greatly to be desired; but, while professing to have these objects in view, they must dissent from a large portion of their brethren who would seek for those objects in the establishment of a "one faculty of medicine," in place of the tripartite representation which has so long existed, convinced by long experience that excellence in the respective departments can only be obtained by sectional separation, and that the appointment of respective institutions to preside over the branches of "physic," "surgery," and "pharmacy," is founded in wisdom, and advantageous to the public.

The governor and company consider that the real grievances under which the profession labours, arise, in the first place, from the irresponsible constitution and unequal privileges of the corporate bodies; and, in the second, from the

want of uniformity of education and reciprocity of rights among the members of the respective departments in the three kingdoms.

The governor and company accordingly propose the following legislative changes:—

1. A full extension of corporate rights and advantages to the licentiates belonging to each branch of the profession.

2. The establishment of uniform curricula of study for England, Ireland, and Scotland.

3. The institution of a "General Board of Superintendence and Control" in each kingdom—to be composed of an equal number of representatives from each branch of the profession, and to be elected annually by voting papers, (as proposed by Mr. Warburton,) whose duty it should be to regulate education—to appoint censors to attend on the different boards of examination—to grant licenses for practice to (but not examine) those presenting diplomas from the different corporations—to recognise teachers and schools—to keep and publish registries of the qualified, and to act in general as a court of appeal and board of health.

4. "Diplomas in medicine" to be granted only by universities and colleges of physicians, "diplomas in surgery" by colleges of surgeons, and "diplomas in pharmacy" by the apothecaries' halls.

5. A license for "general practice" to be granted *in future* only to candidates presenting the joint diplomas of the College of Surgeons and Apothecaries' Hall.

6. A right to recover professional charges to be conferred on those holding the license of the board, and not upon others.

7. Individuals holding the license of the board to be alone eligible to fill situations in the army and navy, and public institutions.

8. The establishment of an Apothecaries' Hall in Edinburgh.

9. The rights and privileges of existing practitioners to be saved in the most full and ample manner.

By order of the Court of Directors,

GEORGE ATKINSON, Secretary.

Dublin Medical Press.

BOOK RECEIVED.

Medical Relief for the Labouring Classes, on the Principle of Mutual Insurance. By H. W. Rumsey. Parker, London.

MEDICAL CONFERENCE.

In the abstract of the proceedings of the Medical Conference, contained in No. I. Vol. II., some observations, at page 18, line 16 from the bottom, are attributed to Dr. Cowan, which were made by Mr. Carter.

TO CORRESPONDENTS.

We have been compelled to defer our reports of the "British Medical and North of England Associations."

Printed by THOMAS IBOTSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JOSIAH PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMSEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, April 16, 1841.

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CLINICAL LECTURES

IN COURSE OF DELIVERY DURING THE PRE-
SENT SESSION,
AT
GUY'S HOSPITAL.

By BRANSBY B. COOPER, F.R.S.
(Published with permission of the Lecturer.)
MONDAY, APRIL 19, 1841.

LECT. XV. *On a case of comminuted fracture of the lower extremities, of tibia and fibula, resembling dislocation of the ankle—On a case of compression of the brain, with appearances simulating those of depressed bone—On false cartilages in the knee joint, and the operation for their removal.*

GENTLEMEN,—This morning I shall make some clinical remarks on the most important cases that have been admitted into the hospital, under my care, since my last lecture; and refer, in the first place, therefore, to a case of comminuted fracture of the lower extremities of the tibia and fibula, which resembled dislocation of the ankle-joint so closely in its appearances, that, on my arrival at the hospital, several very competent judges told me to come directly to Accident Ward to see a case of dislocation of the ankle. Here are the notes of the case.

"Edward Bartram, aged thirty-six, a strong healthy-looking man, was admitted in Accident Ward, under the care of Mr. Cooper, on the 31st of March, 1841. About two hours before his admission he was at work, building the frame-work of a factory, when a sudden gust of wind overturned the building, and precipitated him, with four other workmen, to the ground. Upon examination the foot was found to be turned considerably inwards, and presented very much the appearance of dislocation; but when Mr. Cooper arrived, he discovered there was a severe comminuted fracture of the left tibia and fibula, immediately above and apparently extending into the joint. The external malleolus was very much comminuted, and the fragments of bone were distinctly felt immediately beneath the skin. His pulse was weak, and he had not recovered from the collapse. There were no external injuries, but he complained much of pain across the loins from a blow received from a piece of timber which fell on him. The urine, however, was passed without pain; it was clear, and free from blood, and he retained his feces quite naturally. There was no pain in the head, and respiration was unaffected. The leg was placed on a back splint, with a foot-piece, and was supported by side splints, so as to keep the limb perfectly in position. Evaporating lotions were also applied to the ankle.

April 1. Has passed a tolerable night, but complains of considerable pain in the ankle. There

is a small vesicle formed over the joint, and considerable effusion of blood over the external malleolus. The tapes which surrounded the splints were loosened, and this afforded him much relief.

3. There is a large vesicle over the external malleolus containing bloody serum. The external splint was, therefore, removed, and solution of muriate of ammonia applied as a lotion. Pulse good. Tongue clean, and bowels regular.

6. Going on favourably. An interrupted splint was substituted for the common one, in order to avoid pressure upon the vesicle, and the use of the lotion was continued.

9. He is going on well, and the vesicles have rather diminished in size. Appetite good. Tongue clean. Bowels open. Sleep undisturbed.

17. Going on very favourably."

Such, gentlemen, is the report of my dresser, and on his remarks I may found a few observations. The great peculiarity of the case was its extreme resemblance to dislocation of the ankle-joint, and it was not until I had brought the limb into the most favourable position for reduction, by laying it, semiflexed, on the side, and slightly extending the ankle before I made extension to reduce what I considered to be a dislocation, that I felt the crepitus and the comminuted portions of the external malleolus, and knew the true nature of the case I had to treat. It then appeared that the tibia had been fractured at the situation of the union of the epiphysis, that is, about an inch above the articular extremity, and instead of the fibula being broken three or four inches above the malleolus as usually happens, its fracture was on a level with that of the tibia. It was evident, then, that we had to deal with a case more dangerous than one of simple fracture in another situation, on account of its close vicinity to the joint, because we had, therefore, to apprehend irritation of the synovial membrane, effusion of synovia, and the constitutional disturbance which would be thereby occasioned. Had there been also laceration of the anterior or posterior tibial artery, the case would, in all probability, have required amputation; because, then, as well as contusion of the soft parts, there would have been laceration, or they must have been divided to secure the artery, and then we should have had all the circumstances which are usually considered most strongly indicative of the necessity for amputation in cases of fracture, namely, compound fracture, laceration of artery, comminuted bone, and all this in the immediate neighbourhood of a joint. Had synovitis supervened, there would be fear of supuration of the membrane, ulceration, escape of synovia, and probably amputation would have been called for secondarily, or, in other words, on account of the disease set up by the injury, after the more immediate effects had subsided.

You observe that vesicles of considerable size formed over the seat of the injury. This was merely the result of ecchymosis. Blood is effused, and presses on the cutis, so as to impede the cir-

culatation through this tissue, and serum is formed between the cuticle and cutis necessarily separating them, and forming the vesicle. Now would you remove this extravasated blood? I can only say for myself, that I consider it much better to leave it to nature, whether you believe the coagulum will be subsequently organized or not. Some look upon it as a foreign body, but Hunter, as you are probably aware, believed that the serum alone was absorbed, while the fibrin might become organized, and converted into a structure of the same nature, and texture, and properties, as that from whence its blood is derived. In other words, if a fibrinous coagulum receives its blood-vessels by extension of those in cellular membrane, the fibrin is converted into cellular membrane, and if from those of cartilage, it is converted into cartilage, a subject to which I shall recur, if I have time, when speaking of the formation of loose cartilages in joints.

The man has been going on so well, that we may now look upon him as convalescent; but what has been going on about the joint? Well, for the first five or six hours after the accident, effusion of blood was probably the only occurrence, no violent inflammation having been set up, nor any muscular spasm excited by spiculæ of bone. Suppose he had been killed at this period by some other injury, we should have found increased redness of the medullary membrane of the bone, and a coagulum filling up the cancellated osseous structure, which would prevent any escape of the oily matter called marrow. Now this coagulum of fibrin, which is left after the separation of the serum, remains through the whole period of the reparation of the bone. I am convinced it is not removed. I believe it becomes vascular. I have made numerous experiments on this subject, and published their results; others can do the same, and they will find that from the first hour of fracture to the last moment of reparation, this first deposition is never removed, but that it becomes vascular. It is poured out by the vessels of the medullary membrane, not by those of surrounding structures, for if you attempt to remove the coagulum you will find that it adheres to the medullary membrane only. It also appears to coagulate more rapidly than blood from other structures; for you cannot examine the parts around a fracture quick enough after you have produced it, to anticipate the coagulation of the blood which is extravasated around it, for this is not an effusion from the small vessels which ramify in the cellular membrane, just as it is connected to the periosteum, but from the large medullary branches which are distributed over the medullary membrane. Now mark the difference between the distribution and size of these two sets of vessels, those of the surrounding cellular tissue being small and hardly traceable from any single vessel, while the supply of blood to the medullary membrane is furnished by a large vessel, entering through a distinct and lengthened canal. The coagulum fills up the cancellated extremity of the bone, closes it, prevents the escape of medulla, remains as fibrin, and becomes organized, the blood which is thrown out in consequence of injury thus, as Hunter believed, fulfilling an immediate office, and effecting, by its organization, ultimate reparation. In the first instance, it is a warm fluid, a sort of soothing fomentation to the

injured structures; then, as it coagulates, it gives stability and support to the part. As the fluid parts are absorbed the swelling is lessened, and a kind of delicate splint is formed by the contraction of the fibrin. Vessels then shoot from the cellular membrane, and cartilage is formed: and whether the effused fibrin is itself organized and converted into cartilage, or whether the vessels of surrounding parts are excited, so as to throw out cartilage, it is independent of any assistance from the periosteum, for the periosteum begins only where the temporary cartilage ends, and then, as soon as the cartilage is perfectly formed, the cellular membrane, surrounding the provisional callus becomes condensed, and then forms a limit to its growth, models it, and prevents inordinate growth or further deposition. The formation of provisional callus being thus completed, a new process is commenced, the fractured extremities of the bone become softened, the vessels of the medullary membrane shoot into the callus, and deposit earthy matter, during which process the cartilage becomes contracted, and the ends of the bone are necessarily brought into closer apposition. Thus, you see, exostosis is comparatively limited in its growth, so long as the integrity of the periosteum is preserved, but as soon as this has ulcerated, the bony growth may extend to any size. I look upon the periosteum, therefore, as giving a limit to the growth of bone, rather than being an active agent in its reproduction.

In this case we must expect some irregularity of the limb to ensue, for the outer part of the fractured portion being bone, the inner cartilage, bone is only deposited from the outer part, and therefore a greater quantity is required on the outer part than if it were from both sides, and some irregularity must necessarily follow. Then, in six or eight weeks, the fracture will be considered to be united; but this is merely the ossification of the provisional callus, for it is some months before the ends of the bone themselves are united by bone, and twelve or fourteen months before the bony medium of union is converted into cancellated tissue.

In a few words, I should say that the effects of a simple fracture of bone are—first the effusion of a greater or less quantity of blood; next the absorption of its serum and red particles: inflammation of the bone, and of all the surrounding tissues, next takes place; this leads to a deposition of lymph, which soon becomes hardened into cartilages, which if not different in character seem at least to perform two distinct offices:—that secreted by the cellular membrane of the surrounding soft structures produces, by its hardness and contraction, an approximation, or even contact, of the fractured portions; and this proving a fresh source of excitement to the cartilage secreted by the vessels of bone, leads to its ossification; whilst that thrown out by the soft parts is, in the end, either absorbed or converted into a structure, the same with that which effused it; showing that the vessels of each part are capable of appropriating their blood to the reproduction of the particular structure from which it was derived.

INJURY TO THE HEAD. TREPHINING.

The next case to which I shall allude, is one of some interest, not only because it points out some of the difficulties which beset us in practice, but

as it in some degree implicates the propriety of my practice, strengthened though it was by the concurrence of my colleagues. I will read you the notes of the case.

"John Camron, aged fourteen, admitted April 1, 1841, into Cornelius Ward, at 5 P.M. About half an hour previous to his admission he fell from the mast of a brig, about seventy-two feet from the deck. He was immediately taken up quite senseless, and was bled largely by a practitioner in the neighbourhood, although he was then in a state of collapse, and had bled profusely from a wound in his arm. On his admission into the hospital there was found considerable ecchymosis just above the left eye, with appearances which were supposed to indicate fracture and depression of the bone, and there was bleeding from the nose and meatus auditorius. The breathing was stertorous, the right pupil contracted, the left dilated, and sensation and motion were entirely gone. The pulse was slow and labouring, and respiration imperfectly performed. He could not be roused for a moment. Besides the above-mentioned injury, there was a compound comminuted fracture of the humerus, rather below the junction of the superior with the middle third. The elbow-joint was severely injured, and there was simple fracture of the radius and ulna about the middle of the fore-arm. There were no other external marks of violence about the person. Mr. Cooper was sent for, and arrived a little before seven. In the mean time Mr. Callaway and Mr. Cock saw the patient, and ordered the arm to be put up in splints. Both these gentlemen believed that there was fracture of the frontal bone, with depression; and when Mr. Cooper saw the boy, he decided upon performing the operation of trephining, which he did about half-past seven, the symptoms having previously become much more marked, the pulse quicker, and intermitting at intervals of about sixty beats. After making a crucial incision through the integuments, and raising the periosteum, no fracture was found, but Mr. Key and Mr. Cock concurred with Mr. Cooper in the propriety of proceeding with the operation, as the inner table might have been fractured, or there might be effusion underneath. On removing the portion of the bone, this was not found to have taken place, and the symptoms went on without alteration until half-past ten, when death took place, being six hours after the accident."

Now gentlemen, here was a pure case of compression of the brain, as evidenced by the great symptom, namely, complete abolition of sensation and volition. In concussion, the patient may be roused by calling sharply to him; sensation and volition are only suspended, and may be restored; while, in compression, no means short of removing the cause of the compression will restore either. The pulse was labouring, full, hard, and intermitting, while in concussion it is natural until the patient is roused, and then it rises to 100 or 120. In this case it could not be thus altered. Then there was stertor, bleeding from the ear, mechanical injury to the head, and evidence that he had fallen from a great height. As to the feeling of depression, I know perfectly well, and have pointed out to you in my Clinical Lectures this session, how the effusion of blood in the scalp may simulate depression of bone on careless examination, the finger sinking

into a well its own pressure produces by forcing aside the blood. But on firmer and firmer pressure the larger surface of bone do you feel, more blood, either fluid or coagulated, is displaced, and you feel nothing like a sharp edge of bone. I remarked before operating, to the bystanders, that I could feel nothing like a sharp edge of bone, but, on comparison with the opposite side, depression appeared so evident both to the fingers and eye, that we determined to trephine. However, on cutting into the bone, this was found perfectly sound, and it became a question whether or not to desist from the operation. It was thought better, however, after full consideration in consultation, to trephine, as the symptoms were so very urgent, and it was possible that the internal table might be depressed, or that there might be sanguineous effusion between it and the dura mater. You might suppose that it was not very likely for the internal table to be fractured, the external remaining sound, but you must remember that their textures are different; the external, being more fibrous and tough, might yield under pressure, and, being forced into the internal more brittle lamina, might, and sometimes does, propel this latter upon the brain. However, nothing of the sort had occurred—the parts were all perfectly sound, and as no post-mortem examination was allowed, we can only say, looking at all the circumstances of the case, especially the height of the fall and the bleeding from the ear, (though this is not an *experimentum crucis*,) that in all probability there was a fracture of the base of the skull.

OPERATION FOR THE REMOVAL OF A FALSE CARTILAGE FROM THE KNEE-JOINT.

The time is now so nearly expired, that I must be brief in my remarks on the case on which I operated last Tuesday, and which operation proved so tedious and painful. It is generally a very simple matter to remove a loose cartilage from the knee-joint; and I have done it three times before this with complete ease and safety. All that is required is to extend the knee, bring the cartilage to the inside of the joint, and make an incision, when the body jumps out with a considerable impetus. Indeed, in one case in which I performed this operation, the cartilage bounded to such a distance that it was only after a long search it was found among the sawdust. There were circumstances in this case which led me to anticipate unusual difficulty, and this I explained to the patient, but he was very anxious to have the operation performed, and I accordingly did it. You can generally move the loose body to the inside of the joint, and then, by extending the limb, the tibia and fibula are brought into perfect apposition, so as completely to close the joint, and prevent the cartilage from slipping away. You then press it against the edge of the internal condyle of the femur, divide the skin, and an aponeurosis derived from the vastus internus, having previously drawn the skin well forward, so that the opening into the joint shall not correspond with the external incision. On dividing the synovial membrane, out jumps the cartilage. In this case, instead of being able to get it to the inner, we could only get it to the outer side of the joint, which is much farther from the surface, on account of the vastus externus being so much more thick and fleshy low down than the vastus internus. Then, to increase the

difficulty, we could only get the cartilage into the position necessary for its removal when the joint was flexed instead of being extended, so that there was plenty of room left for the cartilage to slip away into the interior of the joint. Well, I cut through the tendon of the vastus externus and the synovial membrane, passed my finger into the joint and felt the cartilage, but when I withdrew my finger the tendon closed, so that no opening was left for the body to pass through. I repeated this attempt at extraction, but without success, and therefore divided the upper portion of the tendon, after which I got my finger into the cartilage, and easily removed it. Severe inflammation came on the next day in the joint, accompanied by dangerous constitutional disturbance, and it was only by the use of free bleeding, full doses of opium, attention to the secretions, and maintaining the most absolute quietude of the limb, that we have ultimately placed him out of danger, and in a fair way for recovery.

It may be a question whether this operation should be performed when it is impossible to retain the body in situ, excepting when the limb is flexed, especially as, under the most favourable circumstances, it is by no means free from danger. Some have lost their life, and many have recovered only with an ankylosed joint. You must be guided very much by the peculiar circumstances of the case, and in forming your judgment will do well to bear in mind the case of which I have been speaking, the difficulties which presented themselves, and their origin.

COURSE OF CLINICAL LECTURES

ON

SURGICAL DISEASES.

DELIVERED AT THE HOSPITAL OF LA CHARITÉ,
BY PROFESSOR VELPEAU.

LECTURE III.

CONSECUTIVE ILL EFFECTS OF CATHETERISM.

AMONG the ill effects which occasionally follow the operation of catheterism, there is a most dangerous one which nevertheless has not fixed the attention of practitioners, and a description of which is not to be found in any author. It is of this accident which I wish to speak to-day, as it is important that you should be made acquainted with it. The pathological specimens which you here see, opportunity has furnished me with, and, interested in your instruction, I ought not to allow them to pass without notice. They were taken from a young man afflicted with contraction of the urethra, and who died two days ago. Many years since, I had treated this young man for the same complaint at the hospital of La Pitié; he left this hospital pretty well cured; he passed his urine with facility, and had, for a long while after his dismissal, the habit of introducing from time to time a bougie into the canal when he experienced any difficulty in making water. In this manner, he passed several years without being much incommoded. But having for some time neglected to dilate the canal by means of bougies, the contraction re-appeared, and in order to be

treated again, he came to see me. I had him received into the hospital. He was now unable to sound himself, and I sounded him some few days ago. I entered the bladder without much difficulty or embarrassment, and he himself could pass a bougie as he had formerly done. The day after the last catheterism, I found him labouring under high fever. This fever had been preceded by great shivering and trembling, which continued a long time before the commencement of the reaction, which was also violent, and followed by abundant perspiration. The febrile symptoms continued. I had the patient frequently bled, and placed him on low diet, with the use of diluents. The fever, however, continued; the right knee became very painful and greatly swelled: purulent arthritis had set in. In spite of the most active antiphlogistic treatment the disease increased, the tongue became dry, delirium came on, *adynamia* showed itself, and the patient sank on the sixth day after the invasion of the first symptoms of his disease.

Thus, gentlemen, you find a person in good health, and vigorous, who, in consequence of the introduction of a catheter without difficulty, and without pain, was suddenly seized with shivering, fever, immense swelling of the knee, followed by delirium and death. Here are the diseased parts; shall we find in them an explanation of the symptoms or of the cause of death? We shall see. The urethra presents a small recent excoriation in the fossa navicularis, and several traces of old false passages in the neighbourhood of the contracted portion: below the contraction a thick lardaceous tissue, similar to that which is often observed in other parts, but not surrounded by pus. The prostate shows us nothing, neither do the bladder, the ureters, or the kidneys: in a word, the urinary organs are perfectly healthy; but the veins which surround the prostate—the surface of the vesiculæ seminales, and which constitute a sort of cavernous tissue, are evidently inflamed. The articulation of the knee is inflamed, and contains pus. The other viscera are perfectly healthy, and no other lesion has been observed.

Gentlemen, as you see, we have here an example of a very serious disease; yet authors have passed it over in silence. You will be unable to find any description of it. I was the first who said a few words on it, under the article "Articulation," in the *Dictionnaire de Médecine*, for I there spoke of arthritis as a consequence of catheterism.

When I wrote this article, I had already seen several cases of death or serious accidents resulting in consequence of catheterism, which fixed my attention. When the surgical department at the hospital of La Pitié was confided to my care, I had under treatment a man who had gonorrhœa, with considerable contraction of the urethra. I succeeded in introducing a very fine bougie through the canal into the bladder, when he one day wished to sound himself; he succeeded, but not without causing pain and the passing of a certain quantity of blood. On the day after I found him in a high fever, which had been preceded by violent trembling. General bleeding, diet, and emollients, were unable to calm the symptoms. On the day following he experienced severe pains in the tibio-tarsal articulations, with severe swelling: the symptoms continued to increase, and on the

fifth day I thought proper to give issue to the pus which distended these two articulations. For the space of three weeks there was an abundant supuration, and the patient was in great danger of dying. But he recovered with ankylosis of the two articulations. This fact surprised me, for I was unable to observe in this patient anything wrong in the abdomen, and the urinary passages presented no signs of irritation; after his cure, I continued the dilation of the urethra, and no accident supervened during the continuation of this treatment.

Since then, I have observed two other similar examples. In one patient the articular inflammation was seated in the knee, in the other it occupied the elbow-joint.

About two or three years ago, a printer in excellent health, having a slight contraction of the urethra, entered this hospital. At my first visit after his admission, I passed without difficulty a fine bougie into the canal. During the night he was seized with violent shivering; the day after, tetanic symptoms manifested themselves, and he died in the evening, twenty-four hours after the development of the first symptoms. On examining the body, we searched in vain for the cause of death, and found absolutely nothing: the urinary passages were perfectly healthy.

After this third or fourth case, so extraordinary, and at the same time so discouraging, I again observed two others. A young man, strong and well built, entered the hospital; on the day after his entry, he was sounded; during the evening he was seized with violent shiverings, and next day I found him cold, livid, violet-coloured, and attacked with symptoms resembling cholera; he died in about forty-eight hours. The post-mortem examination showed us nothing except congestion of the lungs.

Here are then, gentlemen, a number of severe symptoms which occur after the operation of catheterism; even death ensues in some cases, and we are unable to find any other lesion than a slight affection of the urethra; these merit attention. Let us enter into some details on the subject.

In private and hospital practice, we often observe accidents following the operation of catheterism. The symptoms usually present themselves under the form of intermittent fever. They take place, whether the catheterism has been difficultly or easily performed. Lithotritists complain much of this obstacle, and we often see patients who have been submitted to the operation of lithotrity, who have never supported the attempts to break the stone without afterwards experiencing a real access of intermittent fever, characterized by a shivering, followed by heat and perspiration. In 1827, I saw a barber, who had come from the country to Paris, for the purpose of undergoing lithotrity, and who, after each sitting, was seized with a violent access of intermittent fever. On one occasion I really thought him in great danger. M. Sanson senior, to whom I spoke of the accidents occurring after catheterism, told me that he had also observed two or three of his patients who were seized in a similar way. About two or three years ago I saw, in my town practice, a patient who, after each catheterism, was invariably seized with violent trembling, followed by fever and even delirium: so much so, that I was obliged

to suspend the treatment which I had proposed to follow, for the cure of the stricture with which he was affected. In a word, the following are the ill effects which sometimes follow the operation of catheterism, and to which I wish to-day to draw your attention. There are violent tremblings which manifest themselves in the course of a few hours, and which are followed by strong reaction, heat, thirst, and perspiration, more or less abundant. Now, gentlemen, consult the description of intermittent fever as given by our best authors, and you will have the enumeration of the symptoms I just related. The access is often single, and disappears on the following day, the patient remaining in the same condition as before the operation. But with other patients we are less fortunate; the access recurs on the following day with the same intensity. Should it not cease in the course of forty-eight hours, nervous phenomena or inflammatory symptoms come on; as cystitis, nephritis, or affections of some other viscera. The disease assumes a totally different character in other patients; arthritis suddenly supervenes; a rapid and considerable effusion is formed in one or more of the large articulations of the elbow, knee, shoulder, or feet: the joint swells suddenly; the tumefaction is increased with the pain and heat and redness. Lastly, all the symptoms of purulent arthritis are manifested, and the life of the patient is then in real danger, for you are all acquainted with the dangers of purulent effusion within large joints.

In other cases we have a still more severe series of symptoms; the features are greatly altered, there is complete prostration of strength; copious vomiting, diarrhoea, and death occur in the course of twenty-four or forty-eight hours. This is one of the most untoward cases which can present itself to the surgeon. A robust, healthy man is sounded with more or less difficulty, sometimes without any difficulty, and a short time afterwards he is seized with most serious symptoms, and dies in the course of twenty-four or forty-eight hours, of three, five, or six days. The cause of these terrible symptoms is far from being yet understood. Several cases have been quoted, in which inflammation of the veins surrounding the prostate, or effusion within the serous cavities, or in certain of the large articulations, existed. You have seen, in the specimens which I have just submitted to you, inflammation of the veins about the prostatic gland; but there are many other cases in which nothing that can explain death could be found.

Finally, all the facts which I have quoted to you, and all the symptoms which I have described, seem to support an hypothesis which I have often had occasion to express here, viz. that a great number of diseases consist in poisoning, by the introduction into the animal economy of a noxious agent, which causes all the phenomena observed. These terrible diseases almost always announce themselves by a violent shivering or trembling; this is the commencement of the evil, and proclaims its intensity. I have already spoken of the purulent infection, and you know that the disease ordinarily commences with violent tremblings; these announce the introduction of a septic agent into the blood, namely, pus. This probably occurs in the disease which I have just described to you. The urine, as you well know, is one of the

most dangerous liquids in the economy, and produces the most frightful ravages, when it is effused into the serous cavities, or infiltrated within the cellular tissue. It is not therefore astonishing that one or more of its component parts, forced, we know not how, to enter the torrent of the circulation in consequence of the operation of catheterism, should become the cause of the phenomena. I will not, gentlemen, insist too much on this point, for it is too easy to lose oneself in the field of hypothesis. The most important point to be ascertained is the treatment. Unfortunately I am unable to inform you on this point; it is impossible to determine a preservative treatment, for accidents occur under circumstances the most opposed. I am as much at a loss in the way of curative treatment. I have employed, without success, venesection, leeches, emollients and antispasmodics. The disease has advanced in spite of these remedies, and in other circumstances it has cured itself without anything having been done:

Ought we to open the articulations when they are distended with pus? I have mentioned a case of cure to you, in which I opened both tibio-tarsal articulations, which operation was followed by recovery; but this is probably only an exception, as death is most commonly the result of such openings. You know that purulent arthritis in the knee is almost always mortal. The amputation of the limb is the best remedy in such a case; but when several articulations are attacked at one time, what can you do? Will you open all the articulations, or practise amputation of several limbs on the same subject? If the case be complicated, as I believe it is, with the presence of a deleterious agent in the animal economy, how are we to combat it when we are ignorant of its nature? In trusting that new researches will discover to us the remedy for these terrible accidents, I have thought proper to describe them to you, and recommend you to study them well, for their etiology is extremely obscure, and above all to be on your guard against them, for you see, from what I have told you, how ineffectual our present resources are.

ON THE

AMAUROSIS AND PAINFUL AFFECTIONS WHICH ATTEND STRABISMUS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—In my last communication to you I stated that there existed numerous cases of amaurosis, more or less complete, and totally unconnected with strabismus, which were capable, by the division and *free separation* of certain recti muscles, of being cured or relieved. On the same occasion I described a most interesting case of partial amaurosis, where no obliquity of the eye was present, with the particulars of its cure by operation; and expressed a hope that I should speedily be able to offer to the profession a simple means of detecting the like cases of amaurosis, to which, for their cure, the division of the recti muscles is applicable.

Previously to fulfilling the above intention, it has appeared to me that a report of the following new and important observations, which I have

made on amaurosis, as connected with strabismus, might not only prove highly acceptable to the profession, but lead to the future better understanding of that peculiar form of amaurosis, which, unaccompanied by strabismus, admits of cure by operation.

Amaurosis, when complicated by strabismus, is frequently attended by very peculiar symptoms, which so vary in particular cases, that the surgeon, previously to any operation, may predict, often with certainty, the degree of sight that will be restored to the patient after the strabismus has been removed.

The symptoms are of two kinds, *objective* and *subjective*.

The *objective* are few and simple; being a slightly-dilated state of the pupil, with a greater or less obliquity of the eye.

The *subjective* symptoms, on the other hand, are remarkable for their variety and severity. They admit of being classed under two heads; namely, those which concern the sight, and those which affect the parts either in the neighbourhood of the eye, or at a distance from it.

Firstly, of those which affect the sight, the following are the principal:—When both eyelids are open, objects may appear double, either on all sides, or in a particular direction. The patient may be unable to read, or to view minute objects, without bringing them to within two or three inches of the eyes, and even then may not be able to read a moderately-sized print, nay, even a large one, for longer than the space of two or three minutes, without the letters becoming so misty and confused, that a black mass alone seems presented to the view.

The above imperfection of vision is an extreme case, and of not very frequent occurrence; the more frequent symptoms are less severe, and are as follow:—If small objects are to be viewed, or a book is to be read, they are brought closer to the eyes than is usually natural, in order that the patient may see them distinctly or read clearly, and this he may do, without inconvenience, for the space of ten or twenty minutes, when the sight will become gradually dim, the object indistinct, and the letters confused, and (as it were) running one into the other; if the patient continue to look at an object or print, for the space of a few seconds, it will become distinct, then misty, again distinct, and again misty, till at last the mist will increase and remain to such an extent that the form of the largest letter cannot be seen, and he will become, for a few minutes, more or less blind. However, if the eyes be closed for a few seconds, the sight will be again restored, and the patient once more enabled to see to read distinctly; though, instead of being able to read for twenty minutes before the symptoms of confusion and dimness of vision commence, he will find that he cannot read during more than ten or fifteen before another rest will be required, and that of a longer duration than the first, even, perhaps, to three or four minutes; at the end of which time the sight will again become fit for reading, but for a still shorter period: perhaps not more than five minutes will elapse before the confusion of the letters will require another period of rest, of a still longer duration than the preceding; thus the increasing inability to maintain a clear view of an object will continue, until at last the patient will find it

impossible, even after a long rest, to see any near object for more than a few seconds together; he is therefore compelled to give up, for many hours, or for the remainder of the day, the employment of his eyes on the subject which causes the dimness. Thus are numerous individuals rendered perfectly incapable of earning their living by any employment which requires exertion on the part of the eyes.

If each eye be examined separately, its fellow being closed, it will, most commonly, be found that one eye has excellent sight, and can view the minutest objects for a long time without fatigue; while the other is more or less imperfect, seldom, indeed, to such complete amaurosis as not to be able to distinguish between light and dark, though frequently to a degree of blindness which will not permit the patient to guide himself about, if the best eye be closed. The most frequent degree of impaired vision is somewhat less than the above, the patient being able to distinguish the forms of large letters, without being able to read a full size print.

The impairment of vision is sometimes likened unto a dark or light fog, a mist or cloud.

Its degree may be permanent, or liable to considerable variation; the most frequent variation is a rapid increase of density in the mist, on the slightest application of the eye to a minute object or print. The extent or situation of the mist is subject to much variety; in some cases it is considerably more dense in the direction of the outer canthus; in others, towards the inner canthus; and in certain instances the object is most obscured when situated directly in front of the central axis of the eye. Of all these peculiarities, the one of the most importance to the surgeon is, the rapid increase of dimness in the affected eye when it is called into use by itself; for in no instance where the patient has permitted me to perform the necessary operations for its removal have I failed to restore the eye to perfect and permanent good sight.

Secondly, of those symptoms which affect the parts in the neighbourhood, or at a distance from the eye: they present so remarkable a character, and are of such frequent occurrence, that I cannot but express my surprise that they should so long have escaped observation and mention.

The most frequent symptoms of which a strabismus patient will complain, are occasional pains and aching over the brow of the affected eye; they are produced or aggravated by exerting the eyes on bright objects, or by attempting to read for longer than a few minutes; in some cases, if the patient will persist in endeavouring to read or work, the pains will extend to the opposite brow, across the forehead, and through both temples, till they become so severe that he is compelled to rest his eyes; in others, lachrymation will be profuse, and increase in proportion to the degree of pain, so that the sight, by the presence of the tears, will become obscured, and form an additional reason for the patient's desisting from reading or working; in a few cases, simple dimness, without lachrymation, will accompany the pain, and increase according to its severity, so as to require a temporal but perfect rest of the eyes.

These painful symptoms resemble, in one respect, the dimness and confusion of vision; that is, in their mode of approach: for if the patient

be anxious to pursue his occupation, and will only rest his eyes when the pain is intolerable, and attended by dimness of sight, he will find that the periods of occupation will become shorter and shorter, while the intervals of rest will require to be gradually increased in length, even to the absolute rest for many hours: such are the frequent symptoms produced by attempting to read small prints, or to view objects which are fine and bright. However, particular employment of the eyes is not the sole exciting cause of these pains, for they are frequently produced by light and heat; indeed, the majority of persons who are afflicted by strabismus complain of more or less pain over the brow of the affected eye, if exposed to a strong fire, or to the heat and light of the sun during the summer; in some cases, the rays of the sun will produce a most severe pain in the eye-balls, brows, forehead, and temples, with an aching of the whole head, particularly at the occiput; the symptoms being frequently worse on the side in which the affected eye is situated.

In some cases, the cause of these peculiar symptoms is not so apparent, for they come on periodically; in many of these instances, the pains have not only been of the most severe kind, but the patients have suffered from violent attacks of giddiness and sickness, which have obliged them to keep their beds during one or two days on each occasion. In two remarkable cases of this description the patients declared that they had never remembered to have been quite free from pain about the eye and brow.

The frequency of the attacks is liable to much variety, even from three times in a week to once during a fortnight or three weeks; or, what may appear still more curious, to only the summer months.

The duration of an attack may be from one hour to twenty-four, or longer.

The length of time to which a patient may be liable to these attacks is from childhood to nearly fifty years, or indeed till relief by operation; in many instances the attacks last but few years, then cease to trouble the patient; but in a few cases they have lasted so long as seriously to affect the health of the patient.

I have been thus particular in describing the above painful affection, both because I believe it to have been here described for the first time, and because its severity, however extreme, forms no kind of hindrance to the performance of the operation for strabismus, but, on the contrary, renders the division of the recti muscles more than ever to be desired; for in no instance has the division and extensive separation of one or more of the recti muscles failed to permanently relieve or cure it.

The following curious and novel fact is one of the most remarkable that I have found to occur in the treatment of amaurosis or impaired vision, when connected with strabismus, namely, that it is occasionally necessary to produce a temporary amaurosis in the straight and well-seeing eye, for the complete removal of a long-standing amaurosis* in the distorted eye. In order that the above interesting result of my investigations may be ren-

* For what is here meant by the term amaurosis, I beg to refer the reader to the definition which has been given in my last communication to the Provincial Medical and Surgical Journal. See No. 27, vol. ii.

dered the more intelligible, I subjoin, as an example, the following case, which is one of several of the like kind.

M. A. B., afflicted by convergent strabismus of the right eye, the sight of which is so imperfect that she cannot see to guide herself about by it unassisted by the left. Sight in the left eye perfectly good.

1840, Oct. 19. I divided the right *internal rectus*; position of the right eye became nearly central, and its *sight very much improved*.

November 19. Divided the left *internal rectus*. Both eyes became abducted, the right more than the left; and the *sight still more improved in the right*: but in the left the sight was made bad.

December 14. Divergence of both eyes equal; sight very imperfect, but equal.

1841, February 8. Divided the right *external rectus*. Position of the right eye, central and natural; its sight *perfectly restored*: while in the left it was rendered still worse than before the last operation.

March 12. Divided the left *external rectus*, which caused the left eye to become central and correspondent with the right. Previous to the last operation the patient could not see to read, by the left eye, a large print, but in a few minutes after the division of the muscle she was able to read newspaper print, and in a short time the sight became as perfect as ever, and equal in strength with the right.

To these, and to the mention of many other deeply-interesting facts which I have repeatedly observed during the treatment of impaired vision, I will take a future occasion to return; here only observing in conclusion at present, that the necessity for these operations on the apparently unaffected eye is not confined to cases of impaired vision complicated by strabismus, but is applicable to cases of impaired vision which are not attended by any obliquity of the eye.

In order that many of your readers may not be deterred from pursuing this practice, permit me to say, that I have divided upwards of four hundred recti muscles, without ever having produced the *slightest permanent impairment* of the sight.

I am, Gentlemen,

Your obedient servant,

JAMES J. ADAMS.

27, New Broad Street, April 12, 1841.

NEW VIEWS OF THE ANATOMY OF THE BRAIN.

By Dr. FOVILLE.

(Continued from page 50.)

THE convolutions connected with the prolongations in the brain of the fibrous parts which proceed from the basiliary quadrangle, or the common meeting point of the sensorial nerves and the posterior parts of the medulla, constitute all the plane internal part of the hemisphere, the surface of the basiliary cerebello-temporal zone, and the lobule of the insula; those developed in the terminations of the pyramidal fasciculus of the crus, constitute all the external part of the hemisphere and the concave surface of the orbital region of its base. The

respective limits of these two classes of convolutions are indicated, on the one hand, by a grand line of convolutions, which courses along the whole extent of the large circumference of the hemisphere, commencing in front at the anterior margin of the perforated quadrangle, and terminating behind at the posterior margin of the same quadrangle; and, on the other hand, by another line of convolutions, which forms the enclosure of the fissure of Sylvius, arising before and ending behind, like the preceding grand line, at the opposite margins of the perforated quadrangle.

Those parts of the brain connected with the fibrous expansions of the lower part of the crura, appear to have no intercommunication between the opposite sides, whilst those parts which proceed from the posterior columns enter into the formation of all the commissures. In this fact will be found the explanation of a very singular phenomenon. In paralytic persons, from cerebral diseases, the faculty of sensation is almost never so completely destroyed as that of motion. This will be the necessary result of the power which the sensorial parts on the unaffected side have by means of the commissures of communicating with the affected limb.

From the foregoing anatomical details, Dr. Foville deduces certain physiological conclusions, which he expresses in the form of corollaries, thus:—

1. "I consider that the fibrous parts of the brain are conductors, some from without to within, others from within to without. I believe that these conducting parts may be distinguished into afferentes and efferentes, and that the distinct course of both the one and the other may be demonstrated. The first are inserted especially into the circumference of the gray substance, and the second into its internal surface."

The "afferent" conductors are those fibres which are intermediate between the posterior parts of the spinal marrow, the optic and olfactory nerves, and the circumference of the convolutions; the "efferent" are those parts connecting the internal surface of the convolutions with the anterior pyramids.

2. "The gray substance of the convolutions intermediate between the two preceding orders of fibrous parts seems to me to be the material substratum through the instrumentality of which the will directs the movements of the body."

This opinion is greatly strengthened by the frequent occurrence of diseased conditions of the gray substance in lunatics; and great stress has been laid on this fact by those physicians who have attempted to account for insanity on physico-pathological grounds. Dr. Foville considers that the frequent atrophy of the convolutions in demented persons has its origin also in the disuse of the functions of the gray substance, and that the fibrous portions become atrophied secondarily, as the optic nerve wastes from disuse in the blind.

The latter part of this interesting memoir is occupied with some novel observations on the modifications received by the cranium from its contents. It has been generally considered that the solid portions of the brain, and the frontal sinuses, were the only agents in the production of those prominences and depressions which mark the exterior of the skull. Wherever a prominence or a bump, as phrenologists call it, was observable,

that was supposed to be produced by a more vigorous and better-developed convulsion. The poets have long talked of great wits being "to madness near allied," but here we are taught by sober philosophy that what was esteemed a sign of a more bulky organ, and a more vigorous faculty, is only indicative of a larger vacuity in the brain, or, more strictly speaking, of a larger cavity. In the numerous examinations of skulls made by Dr. Foville, he has observed a constant and striking relation between the most prominent parts of the cranium, and the situation of the ventricles of the brain. For instance.

"If the frontal eminences are divided horizontally by sawing on a plane perpendicular to their centre, and this section is carried to some depth in the brain, the lateral ventricles are opened by their anterior extremities, each of these extremities terminating in a cul-de-sac, answering to a frontal eminence. In the interval between these two cul-de-sacs of the anterior extremities of the ventricles, we reach the anterior curve of the corpus callosum. If we saw in the same way the two superior occipital protuberances, we arrive at the posterior extremity of the two lateral ventricles, each of these extremities ending in a hollow cone answering to one of the two superior occipital depressions and eminences. Lastly, if the saw is made to divide the two parietal eminences at their summits, and that portion of the long vault intermediate between them, it leads to that part of the lateral ventricles which is the most spacious, and projects the most outwards. It is in this part of the ventricles that is situated, so to speak, the confluence of the anterior, posterior, and temporal regions of these cavities. The same section which leads from the parietal eminences to that part of the lateral ventricles which is the most spacious, and projects the most outwards, falls, in the interval of the two eminences, and of the corresponding portion of the ventricles, upon the posterior margin of the corpus callosum."

These remarkable coincidences seem sufficient to justify the conclusion, that the bony prominences and the ventricular cavities stand in the relation to each other of effect and cause. One of the first symptoms of chronic hydrocephalus is a bulging out of the already salient portions of the skull, and here the cause is too evident not to be at once recognized, viz. an increase in the size of the ventricles. But there is further ground for this supposition than correspondence in situation. The shape of these prominences is found to correspond with that of the part of the cavity abutting towards them. Thus "the frontal eminences are round, like the two cul-de-sacs forming the anterior extremities of the ventricles. The occipital protuberances are much sharper, as are the posterior cornua of the ventricles." The situation and shape of the parietal and temporal eminences coincide with equal accuracy to portions of the ventricular cavities. These facts seem at first to overthrow all our pre-conceived notions of relationship between the prominences of the skull and the subjacent convolutions. But they only do so in part, for we have still left ample means of judging pretty accurately of the degree of cerebral development. The phrenological fool is yet secure from being taken for a man of capacious brain. By accurately drawing the limits of the different salient points of the cavities, and their correspond-

ing impressions on the exterior, large portions of the cranium are left untouched for the undisturbed influence of the cerebral convolutions. The delineation of these lines will divide the surface of the cranium into two sets of parts, which may be called the ventricular and the cerebral. If these two be nearly equal in regard to prominence, neither showing any marked preponderance over the other, the head will present a pretty evenly-rounded contour, and may be considered fairly proportioned. But if one show a greatly superior development to the other, Dr. Foville designates the form according to the preponderating influence which has acted upon it. Thus if the ventricular regions be much more prominent than the convolutionary, the head then assumes the shape which he calls the "eminently ventricular" form; and if the convolutionary portions have the ascendancy, the form is then the "eminently cerebral." The extent of influence exercised by the subjacent convolutions of the brain upon their bony covering continues to be still a point warmly disputed by many. This is by no means the proper place to enter into the controversy; but there is a subject very closely related to it, upon which we shall be excused making a few remarks, viz. the influence of the bony covering upon the subjacent organ which it is destined to protect. In a healthy and undisturbed state, the increase of the brain in size, and the moulding of the cranial bones over it, go on in due proportions harmoniously together. But if the skull be subjected to undue pressure whilst the process of ossification is going on, and the bones are yet soft, they yield to the external force, and in their turn exert a pressure on the brain which disturbs its development, distorts its shape, and is attended through life with the most disastrous consequences. But how comes this pressure to be applied? It is an astonishing thing that ignorance so gross should ever have existed in a civilized country as that from which the custom arose, and it is to be feared is still continued, of constricting the heads of newly-born infants with a tight bandage. We have never heard of such a custom in our own country, but the practice has been very extensively diffused in France of binding the heads of infants with a three-cornered handkerchief, the widest margin of which is rolled, and tied with a knot on the summit of the head. That the influence of such an article of dress on the soft and yielding texture of the bones at so early a period of life should be very considerable, might be easily imagined, but that it was so tremendous both to the moral and physical well-being of these victims of ignorance and prejudice, was never suspected until fully shown by Dr. Foville in 1834, in a work entitled "*Déformation du crâne résultante de la méthode la plus générale de couvrir la tête des enfans.*" This work, though treating on a very momentous subject, and written in a lucid and cogent style, never obtained that notice from the British public which it so richly deserves. We conceive that everything which tends to the destruction of popular error, and to the dismantling of the strongholds of prejudice, be the error ever so local and its influence ever so confined, has a large claim upon the attention and gratitude of mankind. For its value is not confined to the eradication of a single error; but when the attention is directed to one branch of the subject, it immediately commences, taking that as a central

standing-point, to range over many others, and in this way from small impulses often arrives at great and important consequences. But when the error is of so mischievous a character as the one now alluded to, extending its baneful influence to the end of life, and sending its victims in crowds to die in hospitals and madhouses, the hearty co-operation of every well-wisher to his kind ought to be engaged for its destruction. The present work, however, has not this object in view, but contains a philosophic exposure of the pathological and physiological effects of the bandage, which is well worth the attention of the medical philosopher. Having observed among the lunatics in the asylum at Rouen a large proportion of deformed heads, and that one kind of deformity in particular was very prevalent, which consisted in a circular depression, commencing at the superior region of the frontal bone, and passing on each side over the cone of the ear, to below the protuberance, Dr. Foville hazarded the conjecture that this arose from a very common practice in that part of France, of encircling the heads of young children with what was called "the bandage." This was in 1829, in the article "*Aliénation Mentale*," for the French Dictionary of Practical Medicine and Surgery. From that time his attention was turned to the subject, and after numerous observations he arrived incontestably at the conclusion, that the deformity in question was the result of the early application of that mischievous bandage. Little did the misguided nurse imagine, when she twined the three-cornered handkerchief round the infant's head, that she was dooming it to a life of pain, deformity, and madness.

Yet we are shown that the worst forms of these were frequently the results. Tormenting headaches, epilepsy, and nervous disorders of all kinds, up to the most incurable insanity, often followed this baneful practice. The statistics of the asylum at Rouen, in fully confirming the accuracy of these facts, offer a frightful picture of the dire influence of ignorant prejudice in the management of infants. In the month of August 1833, there were 431 patients in the asylum; 202 men, and 229 women.

Amongst the 202 men, 109 had the head regularly formed, and 93 deformed. Amongst these 93 the degree of deformity produced by the bandage was very different. In 36 it was slight, in 46 more marked, and in 11 extreme.

Amongst the women, only 75 had the head regularly formed, whilst in 154 it was deformed; in 68 slightly, in 46 more so, and in 40 extremely.

In the aggregate, the 202 men presented 93 cases of deformity for 109 of regular conformation, whilst the women exhibited 154 cases of deformity for 75 of normal shape. Taken together, out of 431 lunatics, there were 247 heads deformed, and 184 regularly shaped, or 57 per cent. of the former.

These details are not drawn exclusively from persons in the lower classes of society, but the same evil extended to the upper ones also. Dr. Foville states, that amongst 40 patients of the higher classes, there were 22 whose heads had undergone the same distortion.

The nature of the disfigurement produced by the application of the bandage may be easily imagined. Tight compression exerted round the head from the upper margin of the os frontis over the parietal and posterior part of the temporal bones, down across the occiput just below the protuberance,

prevented the circumference of the head at these parts from increasing, and therefore produced a depression of the forehead, which prevented the development of the anterior lobes of the brain. The posterior parts of the brain became enlarged, and the compression extending to the longitudinal sinus, and through it to the whole cerebral circulation, great functional derangement ensued, and the worst of human maladies was often the result. The work is illustrated by twelve figures, showing different degrees of this deformity. In those heads which present its maximum, the natural curves are entirely destroyed. The low and retreating forehead is joined at a sharp angle to the summit of the head, which presents from that point to the crown a long straight line, with a depression more or less deep, near the angle of junction with the forehead. At the crown the sinciput and vertex present another sharp angle; a nearly straight line extending from it to the tuberosity on the occipital bone, where the head takes another sharp turn towards the foramen magnum.

The great and crying evils produced by the application of this mischievous bandage being discovered by an enlightened and philanthropic man, were not likely to remain long unexposed, and the gratitude of the French nation is due to Dr. Foville for his humane exertion in behalf of its infant population. We are not aware that any custom so prejudicial to the healthy growth of children prevails in this country, but there is still sufficient physical mischief produced by ill-adapted dress to merit the close attention of the hygeist and the physician. All the evils of tight stays and cravats, of the stringent garter and the high-heeled boot, are not yet eradicated from our toilette; and any person, in whatever country, who succeeds in calling public attention to the disadvantages and miseries consequent upon vulgar and wide-spread customs of dress, performs a work worthy of the warmest thanks of mankind.

We shall now bring this article to a close, hoping that we have succeeded in giving a tolerably correct idea of Dr. Foville's anatomical discoveries, and in exciting some desire for the more abundant interesting matter which will doubtless be revealed in his great forthcoming work.

ON RESECTION OF THE ELBOW-JOINT.

By M. ROUX,

PRESIDENT OF THE ROYAL ACADEMY OF MEDICINE, PARIS.

WITHIN the last twenty months I have performed the operation of excision of the elbow-joint three times; one in July 1839; another in 1840; and the third in the month of September last. These are not the only cases in which I have performed a similar operation; but I submit them to my surgical brethren, chiefly on account of an improvement in the mode of operation, which I believe to be of some importance.

We all know that when white swellings have arrived at a certain degree, the surgeon has no other resource left than to amputate the limb, or excise the diseased joint. Each method of relief has its advantages and disadvantages; but they are not applicable to all joints, nor can they be compared together, except in relation to certain cases. For my own part, I strongly incline to the

propriety of excision of some joints, whenever such an operation is practicable. Since the year 1812, I have excised the elbow-joint eleven times, and this sum-total exceeds that of all the other important joints put together, for I do not now speak either of the smaller articulations, or of cases in which only a portion of a joint has been removed. Of the eleven operations, three terminated fatally, the remaining eight recovered; of some patients I lost sight; but two I had an opportunity of watching for a long time; one of the latter was a chambermaid, and for fifteen years she was able to follow her usual occupations; she is now married, and conducts a commercial establishment; the other, also, was in a condition to follow his trade during ten or twelve years.

In my first eight cases I adopted the common mode of operating. I made two incisions, one on each side of the joint, and a transverse one behind, on a level with the olecranon, so as to expose the hard parts. But this mode gave rise to several inconveniences, particularly with reference to the after-treatment and dressing of the wound. Hence I resolved, even at the risk of making the operation more difficult, to modify it, by making an external and a transverse incision only, and thus forming two triangular flaps, united in such a manner that the limb may be retained in a perfect state of rest during the after-treatment. I have employed this method in the three cases now submitted to the inspection of the Academy, and have some reason to believe that it has contributed not a little to their happy termination.—*Bul. de l'Acad., March 31.*

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, APRIL 24, 1841.

THE attempt at encouraging competition and research in various branches of literature and science, by the offering of prizes, is a practice which has long been followed. Whether the benefits derived from it are such as might have been expected to result,—whether the additions to our knowledge thus procured are of commensurate value with those resulting from intellectual pursuits for their own sake, uninfluenced by the stimulus of honorary reward, or the desire of pecuniary emolument, admits of considerable doubt. The selection of a particular subject for investigation, and the express limitations under which this investigation is often required to be followed up, are trammels upon the freedom of thought and observation, and upon the reasoning faculties generally, which prove very disadvantageous to the attainment of the objects contemplated. The mind is forced, as it were, into a particular direction, the play of the intellect is restrained, the reflection is limited, for the task must be com-

pleted within a certain period, and the test "*novum in annum premere*" cannot be applied. Hence many of the productions, whether literary or scientific, to which has been awarded the prize of successful competition, however excellent in themselves, and whatever real additions to knowledge they may contain, bear the marks of haste and want of due reflection. Inaccuracies, or imperfections of observation, crude speculations, ill-founded deductions, and, possibly, a theory partaking very much of the character of the baseless fabric of a vision, will be found to characterize, more or less, the majority of essays composed under these circumstances. From the preceding observations it will be seen that we are not disposed to encourage the offering of prizes for competition. In fact, we regard the efforts thus elicited much in the light of forced productions, and, consequently, as being too often deficient in freshness, vigour, and originality. The practice alluded to is, however, much followed on the Continent, and especially among our excitable neighbours on the other side of the Channel, to whose volatile temperament and innate desire of creating a *sensation*, even on the most trifling occasions, it seems better adapted. The mode pursued by the Royal Society, the Geological Society, and some other institutions, of bestowing honorary distinctions for discoveries and researches undertaken and made independently of any prospective considerations of this kind, is, in our view, far preferable, more suitable to the genius of our own country, and better calculated to promote the interests of science and the advance of genuine knowledge. Should the liberal example of Dr. Thackeray be followed by others, or should it hereafter suit the purposes of the Provincial Association to institute an annual or a triennial prize, we hope that the award will be made upon the plan followed by the Royal Society, the honorary distinction being bestowed for services rendered, rather than for those which are yet in embryo, and which may not prove equally deserving.

In making these remarks, we have no intention of applying them to the successful essay for the Thackeray prize. On the contrary, we think the production of Dr. Davidson every way worthy of the award which it has received. It is obviously the result of much labour and thought bestowed upon a subject with which the author has been previously familiar; and the information which it contains will be found available for the determination of many points of great importance in the pathology and etiology of fever. It is on account, therefore, of the many important facts which the essay embodies, rather than with the view of giv-

ing any express analysis of its contents, or critical estimate of its merits, that we shall now refer to it.

The essay is entitled, "On the sources and mode of propagation of the continued fevers of great Britain and Ireland," and is divided into three chapters. The first treats of the sources of continued fevers, the second of the circumstances favouring the diffusion of continued fevers, and the third of the circumstances which tend to render fevers communicable from one person to another. Each of these points of inquiry is manifestly of the highest importance in relation to medical police; and as that subject has recently come under the notice of Government, and otherwise excited attention in various ways, we cannot do better than take occasion to select some of the facts and observations brought forward by Dr. Davidson, which more especially bear upon it. For reasons which it is unnecessary to advert to, we shall reverse the order followed by Dr. Davidson, and consider here the circumstances which are said to favour the diffusion of continued fevers, and to exercise an influence in rendering them communicable from one person to another. This forms the subject of the second and third chapters, and Dr. Davidson considers in succession the effects of a humid state of the atmosphere; of poverty, famine, or food of bad quality; of the accumulation of persons not previously affected; the influence of filth and deficient ventilation; of idiosyncrasy; of delicacy or weakness of constitution; of chronic diseases; of fear, and the depressing passions; of intemperance; of age; of acclimatization; and of trade or occupation. The main object of the Marquis of Normanby's Bill now before Parliament is the removal or diminution of some of the causes here specified, as influential in the dissemination of fever. The extent to which many of these have reached in some of our manufacturing districts, and the miserable effects resulting from them, we have on former occasions fully pointed out. The crowding together of a large population in confined and ill-ventilated situations, the defects of drainage, the accumulation of decaying animal and vegetable matter, and of refuse of every description, were commented upon in some of our earlier numbers, when considering the report of the Committee of the House of Commons upon the health of towns. Dr. Davidson has been led in the course of his inquiries to collect information upon other circumstances influential, or presumed to be influential, in promoting the spread of fever. The effects of privation, and want of proper or sufficient food, have necessarily attracted his attention, and the details given embrace the recorded opi-

nions of many of those whose opportunities of observation have procured them access to the most undoubted sources. It is remarked by Dr. Bateman, that deficiency of nutriment is the principal source of epidemic fever, and the same author attributes the existence of severe epidemics, on more than one occasion, to scarcity and deprivation arising from a failure of the harvests, and a want of occupation among the poor. Dr. Tweedie observes, that "the connexion of scarcity and privation with the occurrence of fever among the lower classes of the community, has been so often verified by the experience of epidemics, as now to be received as a general axiom. Dr. Alison, referring to the fever of 1826-7 prevailing in Edinburgh, of which he gives an account in the *Edinburgh Medical and Surgical Journal*, vol. 28, says—"The chief cause of the unusually great and rapid extension of fever during last winter was no doubt the very distressed condition of a great part of the lower order of inhabitants, in consequence of the diminished expenditure of the higher ranks, and particularly of the failure of many speculations in building, which had given employment to great numbers of masons, joiners, plasterers, and labourers."—"A very great number of the patients received into the hospitals, in fever, belonged to families of which the working members had been out of employment for periods varying from six weeks to six months; and Edinburgh has furnished but too many opportunities, both recently and formerly, for observing that it is among such distressed families that fever spreads most rapidly and extensively." During this period, 1570 persons were received into the Royal Infirmary, and into Queensberry House Fever Hospital, of whom 153, or about one-tenth, died. The statements of Dr. Cowan, in his "*Vital Statistics of Glasgow*," are still more express: "From the close of 1836," he observes, "one of those periodical depressions in trade, arising from the state of our monetary system, has visited this city, and deprived a large proportion of the population of the means of subsistence. From the existence of secret combinations among the working classes in various departments of trade, but especially among the cotton spinners, and the 'strikes' which resulted from these combinations, a very large proportion of the inhabitants, in addition to those already suffering from the state of the money market, were suddenly deprived of employment, and consequently of the means of procuring food. The high price of coal was the means of diminishing the hours of labour, and consequently the amount of wages, in numerous factories, and placed fuel beyond the reach of the lower classes for domestic purposes. And in ad-

dition to these sources of misery, the average prices of grain were much higher during 1837 than they had been for some years previously." The number of fever cases occurring in Glasgow, during the epidemic referred to, are estimated by Dr. Cowan to have been in

1835 6,180.

1836 10,092.

1837 21,800.

And he subsequently makes the following observations on the rapid progress communicated to an epidemic disease by the existence of distress among the working population. "Up to November 1836, the period at which the commercial embarrassments were felt, the mortality from fever had not been rapidly increasing. In November, it was just about double what it had been in January preceding; the number of deaths being 45 in January, and 89 in November. The moment, however, the effects of the stagnation in trade extended to the working classes, the mortality increased with fearful rapidity, aided, no doubt, by the season of the year, the high price of grain, and the scarcity or high price of fuel." The maximum amount of mortality occurred "in the second quarter of 1837, and in the month of May in that quarter, being the month succeeding that in which the strike of the cotton-spinners took place, by which 8,000 individuals were thrown out of employment." These observations are referred to and quoted by Dr. Davidson, who adds some tables constructed by himself from others given in Dr. Cowan's work, to show that certain other causes, supposed to be influential in promoting the spread of fever, were not in active operation at the time. Dr. Alison, in his recent pamphlet on the Management of the Poor in Scotland, brings forward many facts tending to show the influence of a state of destitution in favouring the spread of fever.

In alluding to the Irish epidemic of 1818, he observes, "That it is always in persons suffering, or who have lately suffered, similar privations and sufferings, and the mental depression and despondency which naturally attend them, that continued fever becomes extensively prevalent, is fully established by the history of all considerable epidemics. The elaborate work of Drs. Cheyne and Barker shows that this has been strictly true of all the great epidemics which have appeared in Ireland since 1700, each of them lasting fully two years, viz. in 1708, 1720, and 1731; in 1740-41, (after the great frost of 1740,) in 1800-1, after the rebellion, the transference of the seat of government to London, and the scarcity of 1799 and 1800; and again, in 1817, after the 'transition from the state of war to that of peace,' and the scarcity of

1816 and 1817. That work contains reports from the most eminent physicians in all parts of Ireland on that great epidemic, all agreeing in the statement, that 'the poor were the greatest sufferers, and the fever seemed to rage among them in a degree proportionate to the privations they had endured.' In Ireland, accordingly, at least during the present century, as the general condition of the poor has been decidedly worse than either in England or Scotland, so contagious fever has never ceased to be more generally prevalent. The same observation applies to the epidemic fever in London, after the scarcity of 1800, (the last great epidemic which has occurred there,) to the great continental fever of 1813-14, which followed the track of the French army retreating from Russia, but never made much progress in the victorious allied army—to the epidemic fever of 1817, in Italy, consequent on the scarce year 1816—to the epidemic which affected the British army in Holland, after the disastrous retreat from Flanders in 1794—in Portugal, after that from Burgos in 1812—and to that which nearly decimated the British legion at Vittoria in 1836." A part of these sufferings, however, may possibly be ascribed to the state of mental depression alone, arising from the reverses which preceded several of these occurrences. The same explanation, however, is not applicable to the greater number; and were it even established that in all cases it is the mental despondency, rather than the bodily privation, which is the circumstance mainly predisposing to the reception of fever, it cannot be denied that the former state is ever the necessary accompaniment of the latter.

The author of an able article in the British and Foreign Medical Review, for January last, brings forward much additional information, bearing upon the same point, in illustration of the opinions of those who are disposed to look upon a state of destitution as one of the most fertile sources of the spread of fever and other epidemic diseases. To these, however, we must now content ourselves with a mere reference. The influence of imperfect drainage, want of ventilation, crowding of the population, and other causes so ably insisted on by Dr. Southwood Smith, and other gentlemen examined before the Committee of the House of Commons, we are by no means disposed to underrate; but we must also contend, that strong reasons exist for concluding that bad or insufficient nourishment is a fearful addition to the already extended list of the causes favouring the spread of fever. The attempt to circumscribe the comforts of the poor man and his family, and to compel him to put up with the smallest possible allowance of the necessities of

life, before he is to be considered as a fitting object for public commiseration, is fraught with mischief, which, in a time of general distress, will recoil on those who are the contrivers of it. Destitution on the great scale, whether mediately through its depressing influence on the mind, or immediately by its direct agency in debilitating the powers of the body, is invariably followed by pestilence, which, while it devastates the poor man's dwelling, rarely allows the habitation of the rich to pass unscathed. A heavy responsibility, therefore, attaches to those who, in their plans of economy, and professing zeal for saving the public purse, are the advocates of measures which make absolute destitution the only plea for relief.

MR. HUNTER'S LECTURES.

WE feel much pleasure in announcing that we shall commence, in our next number, a complete series of Mr. John Hunter's lectures on Physiology and Surgery, which were taken with extreme care, and apparent accuracy, by the late Dr. Thomas Shute of Bristol.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 13, 1841.

Dr. WILLIAMS, President.

READ, CASES OF PARALYSIS AND SPASM OF VOLUNTARY MUSCLES FROM SYMPATHETIC AFFECTIONS AND ACTIONS OF THE BRAIN AND SPINAL CORD, BY P. N. KINGSTON, M.D., PHYSICIAN TO THE ST. JAMES'S AND ST. GEORGE'S DISPENSARY.

AFTER some general observations on the influence of the brain and spinal cord, on the motor nerves, partly through the medium of volition and emotion, partly through centripetal nerves conveying impressions to the nervous centres, and producing involuntary movements, the author observes, that although the existence of certain secondary affections and morbid actions of the brain and spinal cord is admitted, their general history has, as yet, been little developed. Our ignorance, he observes, till lately, that in those transient affections of the voluntary muscles, which seem to be excited by impressions on remote organs, and which have been termed sympathetic, the nervous centres with their centripetal and centrifugal nerves always intervene as immediate agents, precluded our referring such affections of the motor nerves to their real source. And in instances of more palpable affection of the brain and spinal cord, the relation between it and any co-existing affection of a remote organ is, most frequently, so obscure, that it is still difficult to meet with cases, in which the dependence of the former upon nervous impressions communicated by the latter can be unequivocally proved. In order to illustrate this subject, the author adduces a series of cases witnessed and conducted by himself. He con-

ceives that they may exhibit the share which the impressions arising from disease in other organs may have in the production of cerebral and spinal affections; and the effects which these again may have in suspending the control of volition over voluntary muscles, and even exciting in them involuntary movements. In this view, he presumes, that the remote morbid impressions have not been alone adequate to the production of involuntary movements.

The cases are grouped by the author under two heads; according as there was, or was not, actual disease of the nervous centres.

The first case, under the first of these heads, is one of general paralysis under mucous irritation from the presence of tenia. The second case is one of general paralysis, under the irritation of psoriasis. In regard to these cases, and many other carefully-detailed cases, the author expresses his objection to the opinion of those, who should contend that the observed phenomena arise from a direct sympathy, without the intervention of the cerebro-spinal centre. And he notices the opinion to this effect, expressed by M. Cruveilhier, in 1829, respecting the tonic contraction of the painful abdomen.

After proceeding, under his second head, through a careful series of cases, in which the predisposition to sympathetic affection may be attributed to an actual lesion of the brain or spinal cord, the author concludes with expressing his hope that the knowledge obtained from such sources may direct us to new indications of cure, and help us to a discriminating use of *known* remedies, which had previously been employed empirically.

A discussion of some length followed, chiefly on the best mode of treating that partial paralysis occurring in children, in whom there is no obvious spinal disease, and accompanied frequently by intestinal irritation. The president had frequently found these cases cured by small doses of calomel. Dr. Addison had found them relieved by electricity, when the paralysis was confined to one leg: when both legs were affected, there was less chance of relief. Mr. Cæsar Hawkins had found no remedy at all satisfactorily useful; and Dr. Mayo related a case, probably of arachnites of the spinal column, in which there was complete loss of power over the extremities, and which all applied means failed to remove. Dr. Merriman had found electricity the most useful of all agents in the cases of children referred to.

FOREIGN MEDICAL LITERATURE.

EPIDEMIC DISEASES.

THE French Government, influenced by that care for the public health which has always distinguished it, employs a commission for the purpose of reporting on the various epidemic diseases prevalent, from time to time, in France. From that report, which has been drawn up by M. Briche-teau, we extract the following particulars:—All the facts which we have been enabled to collect, tend to prove that the severity of epidemic diseases diminishes with the progress of civilization. We have no longer to fear the murderous exhalations from the prisons of Oxford, or the miasmata of vast burying-grounds, like that of the Innocents or of Dijon. In addition to this, science has pro-

vided a means of neutralizing the poison from putrid animal matter, and, with the aid of Labarraque's discovery, we can expose ourselves without fear to the most concentrated products of putrefaction, whenever justice or humanity require such exposure from us. Still much remains to be done, and, in spite of the means employed, we have to deplore the prevalence of certain epidemic disorders, particularly in rural districts.

The reports furnished by country practitioners embrace a great variety of epidemic diseases; but we shall select, as most interesting, typhus fever, pernicious remittent and intermittent, the miliary sweating disease and dysentery.

Typhus Fever.

One of the most remarkable epidemics of fever prevailed in the parish of Prades, near the end of 1838. Of 750 strong and healthy inhabitants, 310 were attacked, and 95 died; the mortality here amounted to 1 in $3\frac{1}{2}$, although excellent advice had been provided for the sick. The cause of the disease, which spread with the utmost rapidity and violence, was clearly traced to a large pool into which all the filthy water, dead animals, &c. of the neighbourhood were thrown. The women who washed clothes on the banks of this pool were first attacked; then the workmen close by; and the disease finally was carried in the direction of the prevailing winds to almost every habitation in the parish. It assumed all the severity and characters of the old putrid fever; in one case only was the body examined after death; several patches of Peyer's glands, near the end of the ileum, were tumid and injected, and the peritoneum was covered with a multitude of livid spots.

The relation of deaths to numbers attacked varied much in the different epidemics of typhus fever, being sometimes as high as 1 in $3\frac{1}{2}$; sometimes 1 in 24. According to a calculation made by the reporter, the population of the districts in which epidemic typhus fever prevailed, amounted to 11,165. Of this number, 1,433 (402 males, 564 females, 530 children) were attacked; 255 (84 males, 132 females, 39 children) died; giving a general mortality of 1 to $7\frac{1}{2}$. Hence the proportion of sick to those who died, is nearly the same as that of the population to those attacked. The mortality among children was only 1 in 15; while that of females was 1 in $4\frac{1}{2}$; and of males, 1 in $5\frac{1}{2}$.

In some of the epidemics, although apparently very severe, all those attacked recovered.

Pernicious Fever.

Examples of this disease are now, fortunately, rare; but it presents itself occasionally under the same circumstances of locality, cause, &c., which formerly gave rise to it. In every instance the origin of the disease could be traced to exhalations from putrid animal or vegetable matter, and the best effects followed the use of means calculated to remove such causes. One epidemic lasted 50 days; 200 people were attacked, and of these 36 died. In another, the sulphate of quinine was administered with great success, but it was necessary to give this remedy in very high doses; some patients took 300 grains before dangerous symptoms were removed.

Miliary Sweat.

This curious disease was first observed in 1718, in certain departments of the Province of Picardy, and has continued to prevail there, more or less, ever since. It commences, after some preliminary symptoms, with copious and general sweating, unattended with fever. About the sixth or seventh day the whole body is covered with sudamina, or small vesicles. From the ninth to the fourteenth day the sweating subsides, the miliary eruption desquamates, and critical hæmorrhage takes place from the nose. In one epidemic of this kind, the disease seemed to be transformed, after having existed a month, into a species of typhus fever, with diarrhoea, irregular accessions, delirium, subsultus tendinum, petechiæ, and intestinal hæmorrhage, often ending in death. The number of persons attacked in this way amounted to 77; of these 20 died, or 1 in $3\frac{1}{2}$. In another epidemic which prevailed with the same apparent intensity, soon afterwards, the mortality was 1 in $7\frac{1}{2}$; but general bleeding had no effect on the disease, although in the former one it had been employed with the best results.—*An. d'Hygiène, April 1841.*

SALE OF POISONS.

M. B., fruit-merchant and grocer, was fined at Paris on the 5th of March last, in the sum of 3000 francs, (120*l.*), for having sold, without inserting a registry of the sale in his books, a pound of sulphuric acid to a shoemaker, who purchased that substance for the purpose of poisoning himself.—*Journal de Chimie.*

PRESERVATION OF THE ERGOT OF RYE.

M. Martin proposes the following as the best method of preserving this medicine. The ergot, having been carefully dried, is moistened with a solution of gum arabic, and then dried on a tin plate. When dry, the same operation should be repeated two or three times, and the ergot is then placed in a carefully stoppered bottle. M. Martin has preserved it perfectly in this way for two years.—*Ibid.*

POISONS AND THEIR ANTIDOTES SWALLOWED TOGETHER.

At a late meeting of the Medical Society of the Temple, M. Lesage related two interesting cases of this kind. The editor of a newspaper, in a fit of despair, swallowed fifteen scruples of laudanum, mixed with javelle water, (solution of chloride of potass.) Symptoms of poisoning scarcely manifested themselves, and he merely experienced some severe pain at the stomach from the action of the potass. This fact seems to confirm the views of M. Jolly, who asserts that the vegetable alkalis are completely decomposed by chlorine. M. Jolly had given two scruples of the extract of opium in lavement, mixed with a solution of chlorine, without occasioning even a tendency to sleep.

A young count, who was violently in love with an actress, resolved on poisoning himself, because he was unable to obtain the sanction of his family to a marriage with the lady. He obtained thirty-two scruples of sulphate of copper, and, to fortify his resolution, drank off a glass of grog with a great quantity of sugar in it. He then immedi-

ately swallowed the poison. M. Lesage was sent for, but could not persuade the patient to take an emetic. However, he perceived that the symptoms of poisoning rapidly abated, and on waiting a little they disappeared altogether. M. Lesage explains this by the action of sugar on the preparations of copper.—*Ibid.*

BRITISH MEDICAL ASSOCIATION.

THE half-yearly meeting of the above Association was held at Exeter Hall, on Tuesday evening, the 30th ult.

Dr. Webster, on taking the chair, said, that as this was only the half-yearly meeting, no regular official report would be presented, but he would lay before the meeting what had chiefly occupied his attention for the last six months. He had the pleasure of announcing that within the last few months three new associations had been formed—the Cornwall, the South Devonshire, and the West Somersetshire, Medical Associations. Though the latter had only been formed a few weeks, there were already forty-four members. The two prominent objects which have engaged attention since the anniversary meeting, are *Medical Reform* and the *Poor Law* question. Much had been done as regards Medical Reform, and considerable agitation respecting it had taken place, both in and out of the profession. The Medical Conference, after repeated sittings, came to certain resolutions. The leading points were, first, the incorporation of the profession into one faculty; second, the representative system, or the management of our own affairs, by a general council representing the profession at large; third, equality of rights and privileges by every member of the profession; and, fourth, a registration of all who were qualified.—(Cheers.) These were the opinions at which, after much care and deliberation, the conference arrived. Dr. Webster then gave a sketch of the interviews which took place, between the conference and the corporations, and criticized severely the resolutions of the latter. He then alluded to Mr. Hawes' bill; and having regretted deeply the loss of the restrictive clauses, he passed to the question of poor-law medical relief. A detailed plan of poor-law medical relief had, after much consideration, been agreed to by this and the provincial medical association. Some weeks ago a joint deputation waited upon Lord J. Russell, to know whether he would object to the clauses embodying the proposed plan. Dr. W. was sorry to say that he had opposed their introduction. He said that so many improvements had taken place already under the excellent management of the poor law guardians and the commissioners, that he could not do better than leave it to them. Two most indefatigable men, however, had undertaken to bring the clauses forward in Parliament,—Mr. Wakley and Mr. Serjeant Talfourd.—(Cheers.) They had engaged to fight for the clauses to the very utmost, and it was to be hoped that they would be successful.

Robert Davidson, Esq., V.P., proposed "That John Kidd, Esq., M.D., Regius Professor of Medicine in the University of Oxford, be elected an honorary member of this association."

S. J. Bayfield, Esq., seconded the resolution, which was put and carried by acclamation.

C. Brady, Esq., begged to move, "That Professor Grant, F.R.S.E. & L., be appointed to give the annual oration on medical reform at the anniversary meeting in October next."

R. L. Hooper, Esq., seconded the resolution, which was put and carried by acclamation.

Dr. Granville, in one of his eloquent addresses, which we regret that we have not room to insert, moved, "That the British Medical Association will not relax in its exertions to procure an efficient measure of medical reform, based on the principles of incorporation, representation, and equality of rights."

G. Bottomley, Esq. (of Croydon), briefly seconded the resolution, which was put and agreed to unanimously.

W. Toovey, Esq. (of Croydon), said, that all of the members possessed, individually and collectively, more or less influence to carry out the resolution which he was about to propose. In the Bill brought forward in 1814, it was proposed to form an examining board of three surgeons, three physicians, three apothecaries, and three chemists. That was very similar to the one-faculty system. The resolution was, "That the members of this association pledge themselves, and recommend to their medical friends, not to vote for any member of Parliament at the ensuing election who will not support medical reform." Whenever an election took place, he hoped there was not an individual among them who would fail to bear in mind this resolution, and not only act upon it himself, but endeavour to influence all his friends.—(Cheers.)

Dr. Granville suggested that gentlemen should not only withhold their own votes from candidates who would not promise that if elected they would support medical reform, but threaten candidates that, unless they assented to it, they would use all their interest in opposing them.

D. Dermott, Esq., said, that the threat of a medical practitioner, locally situated, would not go far: as a general rule, the practitioner was dependent on the candidate who proposed himself. He thought there would be a practical objection to the possibility of carrying out the resolution.

R. L. Hooper, Esq., said, that they had a demonstration of the influence of a threat; Mr. Hawes withdrew instantly from his Bill the clause relative to chemists and druggists, when they threatened to disturb him in his seat. Were not medical men as influential as chemists and druggists?

J. Clarke, Esq., thought that the objection had no weight whatever.

Robert James, Esq., objected to the resolution, as embracing politics. The party who refused to vote for a candidate, because he would not pledge himself to support medical reform, incurred the risk of a gentleman being returned who was opposed to him on general politics.

The motion was carried.

E. Evans, Esq., moved, "That a petition be immediately presented to the House of Commons, praying that the plan of poor-law medical relief, agreed to by the Provincial and British Medical Association, and intended to be introduced by Mr. Serjeant Talfourd and Mr. Wakley, by way of amendment to the Bill now before the House, be adopted." It was well known that the Poor Law Bill was now in committee in the House of Com-

mons, and he trusted that clauses would be soon introduced, or attempted to be introduced, securing a better remuneration to that part of the medical profession that was called upon to attend the poor. He hoped that every gentleman would feel the importance of signing petitions on this subject. The resolution was so concise, and yet so explanatory, that he need not say anything further on the subject.

R. L. Purching, Esq. of Walthamstow, seconded the resolution.

The Chairman explained that the clauses referred to embraced, first, the size of districts, by limiting those which were now too extensive; secondly, they also contended for the abolition of the system of "tender;" thirdly, they provided for something like a remuneration to poor-law medical officers. He had that evening been informed by Mr. Bottomley of Croydon, who had a large district under his care, that he received about 2s. 1½d. for each case of illness. From an examination of the expense of medicine in a large number of hospitals and dispensaries in different parts of the kingdom, it clearly appeared that that sum by no means paid for the cost of medicine alone; the average cost price for each patient was 3s. 3d.; the range was from 2s. 6d. to 4s., or even 5s. In some districts, where quinine was obliged to be largely used, it amounted to the latter sum. The immense size of the districts, and the paltry remuneration given, were injurious in the highest degree to the poor. With respect to the qualifications of the officers of unions, it was highly important that they should be members of the College of Surgeons, and licentiates of the Apothecaries' Company. It was also proposed, that in future paupers on a list should be at liberty, by having on order, bearing a certain value, from the overseers and guardians, to choose their own medical man from those in the neighbourhood who were duly qualified.* Nothing could be more satisfactory to the poor, or more just to the profession at large.

—Bottomley, Esq., expressed a hope that the proposed clause would be carried.

The resolution was then put, and unanimously agreed to.

* This clause does not form part of those agreed to by Mr. Serjeant Talfourd.—*Edw.*

CONFERENCE ON MEDICAL REFORM.

Fifth Meeting of the Delegates, Tuesday, February 9, 1841.

Dr. FORBES, F.R.S., in the chair.

Provincial, Dr. Forbes, Dr. Macartney.

British, Dr. Webster, Mr. Davidson, Dr. R. D. Thomson, Mr. Evans.

North of England, Mr. Carter.

Cornwall, Mr. Grainger.

Glasgow, Mr. Farr.

The Secretary read a letter from Dr. Hennis Green, stating that he had resigned his office of delegate for the Provincial Association.

It was resolved, on the motion of Mr. Davidson, seconded by Mr. Grainger, "That all incorporated members of the proposed faculties should be entitled to vote in the election of the councils."

And on the motion of Dr. Forbes, seconded by Mr. Grainger, "That no one should be eligible as a councillor until he should have attained the age

of thirty years, and been a member of a recognised university or college, or of the faculty of medicine, for a period of not less than five years."

Mr. Carter proposed, and Dr. R. D. Thomson seconded, a motion, "That each councillor should be nominated by at least six electors." This was immediately acquiesced in.

Dr. Webster proposed the following resolution, which was seconded by Mr. Carter, and agreed upon:—

"That the duties of the council should consist in regulating the internal government of their respective faculties, in protecting the interests of the members of those faculties, in superintending the examination of candidates for licences to practise; in granting those licences; in constituting a board of reference for her Majesty's Government in questions relating to public health, medical police, &c. &c.

"That the senate should regulate certain points, in which it would be essential that uniform arrangement should prevail in each part of the United Kingdom, as in framing such by-laws as might be required to regulate the three faculties irrespectively; in settling the qualifications of persons who were to be admitted as licentiates of medicine; in publishing a national pharmacopœia," &c. &c.

Dr. Macartney proposed that the number of the council in each country should be twenty-four.

Dr. Forbes seconded the motion.

Mr. Farr thought there should not be fewer than thirty-six for England; but that the number for Scotland and Ireland should not be fixed, until the sense of the profession in those countries was known respecting it.

Dr. Webster seconded Mr. Farr's proposition, which was agreed to.

Mr. Farr proposed that the number of the senate should be three.

This was seconded by Mr. Evans.

Dr. Macartney proposed that the senate should be composed of twenty-four members, eight from each division of the kingdom. This was not seconded.

Mr. Carter proposed that the senate should comprehend not fewer than nine persons, three from each country.

Dr. Forbes seconded the proposition.

The opinions were,

For a senate of nine persons—Dr. Forbes and Mr. Carter.

For three senators—Dr. Webster, Mr. Farr, and Mr. Evans.

Mr. Evans proposed that all persons should pay an admission fee of 2l. on being enrolled as members of the faculty, and that no fee should be subsequently payable for registration.

FEE FOR LICENCES.

Mr. Farr proposed that 20l. should be paid by every person, on receiving his licence, to the treasurer of the faculty. 5l., he thought, should be deposited by every candidate for examination, which should not be returned if even he were rejected.

Dr. Macartney seconded the motion, that 20l. should be paid on receipt of a licence, but that no money should be taken from a rejected candidate.

Mr. Evans agreed with the last sentiment. He proposed that 30l. should be the licence fee.

Dr. Webster seconded the proposition, and strongly urged that 10*l.* of that sum should be contributed towards an annuity fund, the remainder being handed over to the faculty.

Mr. Grainger thought 30*l.* would be most exorbitant; 20*l.* he considered sufficient, with an additional 1*l.* for a diploma stamp. At the end of an expensive education, 30*l.* would be a most excessive exaction.

Mr. Carter thought 30*l.* for a licence would occasion universal complaint; 20*l.* should be the utmost demand. The College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, received 7*l.* 7*s.* with each member. The former body had named 12*l.* 12*s.* as a maximum fee.

There were for Mr. Farr's motion, that 20*l.* be paid for a licence,—Dr. Macartney, Dr. Forbes, Mr. Grainger, Mr. Farr, and Mr. Carter.

For Mr. Evans's amendment,—Dr. Webster and Mr. Evans. It was agreed that the fee should be uniform in England, Scotland, and Ireland.

The meeting was adjourned to Friday, at six o'clock P.M.; and it was resolved that there should be a meeting on the following evening, at seven, to receive a statement, to be drawn up by the Secretary, preparatory to a conference to be solicited with the College of Surgeons. At the 6th and 7th meetings, no business of any importance was transacted.

Eighth Meeting of the Delegates, Tuesday Jan. 16, 1841, at Two o'Clock.

Present,—Dr. FORBES in the Chair.

Provincial, Dr. Forbes, Mr. Ceely.

British, Dr. Webster, Dr. M. Hall, Mr. Davidson, Dr. R. D. Thomson, Mr. Evans.

North of England, Mr. Carter.

South Devon, Mr. Smith.

Glasgow, Mr. Farr.

East of Scotland, Professor Sharpey.

Professor Sharpey was introduced as a delegate for the Eastern Medical Association of Scotland, and Henry Smith, Esq., for the South Devon Association.

The Secretary read a letter from the secretary of the Royal College of Surgeons, stating that the presidents and vice-presidents would be happy to confer with the delegates at four o'clock this day.

A letter was read from Mr. H. W. Rumsey, and a copy of clauses relating to parochial medical relief sent by him was laid upon the table. Mr. Rumsey expressed a desire that they should be submitted to the notice of the president of the Royal College of Surgeons. To this the delegates felt themselves obliged to object; they were going to the college on specific business, and could not entertain any other subject.

A letter was read also from Dr. Macartney, containing his resignation of the office of delegate, on the ground that "the delegates now sitting" do not, in the opinion of that gentleman, "represent the great body of the profession; and because he cannot approve of many parts of the plan of a Bill submitted to their discussion."

The statement to be laid before the College of Surgeons was then read, and unanimously agreed to.

Dr. Sharpey observed, that there were three points on which he would make a remark.

1. As to the councils, which he thought should contain a certain proportion of members, chosen by the corporate bodies.

2. The examining boards; those already existing might be made use of under certain restrictions, as for example, by the appointment of assessors—the plan of the Edinburgh College of Surgeons.

3. The imposition of a penalty upon unqualified or unlicensed practitioners. To this he objected; he thought sufficient protection would be afforded, if the public were to have the means of knowing who was and who was not a legally-authorized practitioner.

CONFERENCE WITH THE COLLEGE OF SURGEONS.

The following gentlemen were then deputed to proceed to the college:—Dr. Forbes and Mr. Ceely, Dr. Webster and Mr. Davidson, Mr. Carter, Mr. Grainger, Mr. Smith, Dr. Sharpey, and Mr. Farr.

The delegates were received at the college by the president, Mr. Vincent, and the vice-presidents, Mr. Guthrie, and Mr. White.

The President having taken the chair, Dr. Forbes stated, that the delegates from the various medical associations, having reason to believe that certain changes were contemplated in the constitution of the medical colleges and corporations of this metropolis, and having been assured that the college were disposed to confer with them on the subject of medical reform, had requested this interview, for the purpose of learning if the council were willing to acquaint them with the proposed nature of those changes. The delegates would have no objections to state to the council the conclusions at which they had arrived on some of the main principles of medical reform. Their views were not, however, by any means unsusceptible of modification; they would be happy to receive and deliberate upon any suggestion which the college might offer, and would be glad to have the assistance and co-operation of the council in their endeavour to give effect to those principles which had been adopted almost universally by the members of the medical profession in Great Britain and Ireland.

The President said that the council had held a meeting on the day he had received the letter of the secretary to the medical conference, but that it had not been put into his hands until after the termination of the meeting. The presidents and vice-presidents of the college were empowered to receive deputations, and to confer with the government; he had, therefore, deemed it expedient to invite the medical delegates to the present interview, that time might not be lost, and that he might have an opportunity of communicating their sentiments to the council at its next meeting. He thought it necessary to explain, however, that anything which might be said by himself, or by his colleagues, at this time, must not be considered as official; the council knew nothing of this meeting. They had for some time been occupied with the consideration of certain changes; but as these were still under discussion, it would be improper to anticipate the decision of the council.

Mr. Guthrie thought the best course would be for the delegates to state what they were in want of in the shape of medical reform.

The opinions of the conference were then read.

Mr. Guthrie said that the incorporation of the profession would operate as a dose of arsenic to the college: it would destroy its existence altogether. The first opinion of the delegates was all that need be considered.

Mr. Carter observed that, in the opinion of the delegates an incorporation of the profession would not be attended with the result anticipated by Mr. Guthrie.

Mr. Guthrie said the new medical body could not be erected without destroying the old ones. The college was most anxious to remove any reasonable ground of complaint which might not involve its own removal, but it did not wish voluntarily to surrender itself to death.

Dr. Webster remarked that the establishment of the Apothecaries' Company, on its present footing, had not prevented the college receiving a much greater accession of candidates for its diploma, and consequent accession of funds, than it had received before the present charter had been granted to that company, and yet the latter was the only body in England which could enforce the possession of its licence. He thought the delegates would feel much obliged if Mr. Guthrie would state the nature of the reforms which were contemplated in the College of Surgeons.

Mr. Guthrie asked, what were the grievances of which Dr. Webster had to complain. He believed there was not one which the college was not anxious to see removed. It ought to be remembered, that the powers of the college were limited by its charter; it was not a governing body; it was a mere surgical establishment, and he thought it was honourable to surgery that it should have its own college. He was most anxious that this country should always have a college of surgery.

Dr. Webster complained of the conflicting and varied regulations of the several examining and licensing boards of the United Kingdom, and of the perpetual changes which were made in the curricula of study. There was no board in London which could conduct a proper examination of general practitioners.

Mr. Guthrie replied, that the sole business of the college was to examine in surgery. Those who wished to practise medicine went to the College of Physicians; those who would practise pharmacy, to Apothecaries' Hall; and those who intended to be accoucheurs, should be submitted to the examination of some other board. The president of the college was a *surgeon*; he required no examination in midwifery, and his attendance in the laboratory of his hospital gave him a sufficient knowledge of pharmacy for one who did not pursue that branch as a business. Country practitioners being called upon to practise all four departments, ought to undergo all four examinations; it did not follow, however, that he should be examined in all at one time, or under the same roof.

Dr. Webster was happy to hear Mr. Guthrie's admission, that an examination in *every* branch was requisite to form a general practitioner.

Mr. Smith thought it somewhat inconsistent that a country surgeon should have to undergo four examinations, while one was sufficient for a metropolitan consulting surgeon. It would be a great oppression if general practitioners were to be subjected to the ordeal of four boards.

Mr. Carter inquired how the fees would be re-

gulated in such a case. Would there be four distinct payments?

Mr. Guthrie said, by no means; the college was indifferent about the fees; one moderate fee would have to be paid for all examinations. Measures were in progress to form a complete scheme of examination through the medium of the present examining bodies; but to a representative medical faculty he could not consent: it would be a death-blow to the college.

Mr. Farr said, the college would be placed on higher grounds than before by the proposed change, if the council were chosen by the members. Licentiates of the new body would think it an honour to belong to the college.

Mr. Carter said, the Royal College of Surgeons of Edinburgh saw nothing incompatible with the persistence of the present corporations in the construction of a representative governing body.

Mr. Guthrie observed, that the Edinburgh College had less to do than the London, and it probably expected to form the examining board for Scotland. It was different from this college; it was a college of medicine, midwifery, and pharmacy, as well as of surgery. The new board in England would examine in surgery, and it was absurd to suppose that its members would place much value on an additional and separate surgical diploma. An attempt had been made to assimilate the curricula of the London and Edinburgh colleges; but the latter would not consent to so long an hospital attendance by six months, as the London college deemed requisite. They were satisfied in Edinburgh with a lower standard of acquirement: hence the want of agreement between the two colleges. The idea of opening the college to the election of its officers by 14,000 would be preposterous; there would be no end of the trouble occasioned by supplying them with voting papers; and what assurance had they that proper men would be chosen? A medical practitioner, in some remote part of Cornwall, would, perhaps, form his opinion of his (Mr. G.'s) character from what was said of him in print, and he would not, consequently, be chosen as a member of council. A system of representation would, he believed, be adopted, but it would be of a limited character; the electors would, perhaps, have to undergo a second and higher examination as a qualification; he had, from the moment of entering the college, been in favour of a measure of this kind.

Mr. Grainger stated, that the profession generally was dissatisfied with the college; its own members were shut out from any share in its transactions; a better regulation of medical education was required than that provided by the present institutions. The profession was almost unanimous in wishing for a representative governing body, as the only remedy for the evils they now had to complain of.

Dr. Forbes thought the Apothecaries' Company should never have been entrusted with the care of medical education, or the licensing of medical men: there was an entire want of a proper board for examining candidates for medical practice, and the establishment of such a board would not be injurious to the colleges now in existence.

The President thought that the new board would have the effect of gradually destroying the old ones, and of creating but one class in the pro-

fession; he believed the high state of surgery in this country was owing to its being made a separate and distinct department, and being placed under the superintendence of its own college.

Mr. White thought the constitution of the London College of Surgeons could not be improved; he was unwilling that it should undergo the slightest alteration. It was a mistake to suppose that the council were irresponsible; they were responsible to government. True, they did not profess to examine candidates in all departments of the healing art; they were surgeons, they knew nothing but surgery; they had nothing to do with medicine or midwifery; and, as to pharmacy, they were not required to know what calomel was; its new name was foreign to their ears: they kept strictly to their own department. What was there to complain of in the college? He did not know of a single defect. If such could be pointed out, he was sure the president would exert himself to effect its removal. Did not the council contain the most eminent men in the profession? Had not their funds been usefully employed? Their museum had cost 15,000*l.*; it was then small. What was it now? The wonder of every one. Then their library, which a few years ago consisted of a few volumes, now contained no fewer than 20,000. And for whose benefit had all this money been spent, and these improvements made? For the profession. The museum was open to all; the library was closed against none, although the books could not be removed from the room. The education of medical men was greatly superior now to what it used to be; their attainments were higher; their examinations better. The college had joined the physicians and apothecaries in framing new schemes, not because it thought itself in need of amendment, but that it might not refuse to unite with them in their views and proceedings.

Dr. Webster complained of the Apothecaries' Company. Sir Benjamin Brodie had stated to him, that the examinations of the present bodies were not sufficiently practical. He wondered that the college had never attempted to defend its members against the prosecutions of the Apothecaries' Company.

Mr. Guthrie said the company had abandoned prosecutions. There was nothing, in fact, in the shape of abuse which the three London corporations were not willing to amend; but they wished to take their own way of doing it. They were preparing a Bill to Parliament, and the only difference between their plan and that of the delegates was, that they would try to prolong their own existence, and not erect a new establishment, which was to serve *instead* of the old ones; the latter might be subservient to the proposed end.

SMALL-POX.

A correspondent at Warrington informs us that on Sunday evening last, three children born of the same parents were interred in one grave, having died of casual small-pox. Yet, while facts like this are occurring throughout the country, every obstacle is thrown in the way of the diffusion of vaccination by the so-called guardians of the poor.

SURGICAL REGISTRY.

THE Council of the College of Surgeons, London, being desirous of furnishing a correct list of their members, have issued a notice requesting that each member will transmit to the Secretary a statement, containing his name at full length, address, and date of diploma, in order that it may be compared with the chronological list. The member should also state, in a similar manner, if he have a degree in medicine, or the licence of the Apothecaries' Company.

USE OF SULPHUR OINTMENT IN SMALL-POX.

NEARLY two years have now elapsed since one of the Editors of the *PROVINCIAL MEDICAL AND SURGICAL JOURNAL* endeavoured to direct the attention of the London Medical Society to the treatment of small-pox pustules with mercurial plaster. Some of the members promised to give the plan a fair trial, but we have never heard that any experiments were performed by them. Within the last few months this plan has been frequently noticed in the *English Medical Journals*, but it would appear from the experiments of Dr. Midaveine, that sulphur possesses the same efficacy as mercury in arresting the development of the small-pox pustule. Dr. M. employs an ointment composed of two to two and a half drachms of flour of sulphur to an ounce of lard, and with this rubs lightly, thrice a day, all parts of the body on which pustules exist. The nearer the pustules are to the period of their first appearance, the greater the chances of success; the papule then contract, become dry, and fade away. Even in confluent small-pox the patient quickly recovers his appetite, and asks for food. We should, however, remark that Dr. Midaveine employed the sulphur ointment in sixteen cases only, and of these twelve had been vaccinated.—*Gaz. Med.* No. XV.

A MEDICAL PEER.

It is reported in the best informed circles of Paris, that M. Double is about to be elevated to the dignity of a Peer of France. Rumour also connects with his name those of Baron Larrey and M. Orfila.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on April 16, 1841.—William Burford Norman, William Too-good, George Francis Keys, Richard Davison Pritchard, Richard Oxford, Charles Mott, James William Young, Alexander Thorn, Henry Mortimer Rawden.

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THE FIRST COURSE

OF

LECTURES ON PHYSIOLOGY AND SURGERY,

DELIVERED AT ST. GEORGE'S HOSPITAL,

BY JOHN HUNTER, F.R.S.

(From the Manuscript of Dr. Thomas Shute.)

LECTURE I.

INTRODUCTION.

Matter and its properties ; differences between animals and vegetables ; life and its properties ; the stomach ; different kinds of action ; the senses ; life compared to magnetism ; vegetable and animal substances ; instincts ; sensation ; sympathies of the stomach.

GENTLEMEN,—The principles of surgery have not been hitherto so much attended to as they ought ; operations have been most studied and improved ; surgeons deriving more importance from the performance of capital operations than from their judgments. By-standers look at an operator with a degree of awe, as the executioner is beheld by the vulgar with greater awe than the judge.

Genius goes beyond routine, and catches at principles, and distinguishes a Columbus, Newton, &c. Columbus was the first genius in the world.

To have just ideas of any subject, it is proper to begin with its first principles, as far back as they are known, tracing the subject to its origin. In these lectures, therefore, matter is first generally considered, that being the first idea we obtain. By matter is here meant that general substance of which this earth is composed.

Every arrangement of matter is liable to accident. In mechanics, by force ; in chemistry, changes are produced by attractions ; but in animal bodies the powers of change are inherent in the matter.

It is by our sensations that we are acquainted with the properties of matter. And it is from the different properties of matter that we acquire a knowledge of our senses. Thus each makes us acquainted with the other.

As sensation alone makes us acquainted with matter, the properties of matter are demonstrated as far as we can demonstrate our sensations.

The matter of which this earth is composed may be the same in every part, and the variety of forms or kinds of matter which seem to exist, may be nothing more than the same, with its particles differently arranged.

From the different manner in which matter affects our senses, it has different names given to it.

There are some properties common to all matter, and others which belong only to different kinds, or modifications of matter. One of the first is the attraction of gravitation, by which the whole earth is kept together, and the animals upon it. A

second, the attraction of cohesion, by which the parts forming one substance are kept together. By this attraction various particles are frequently combined together, forming apparently one homogeneous mass. A third property is elective attraction, which occurs where particular particles attract those of another kind in preference to others, leaving those they were before combined with, and thus forming new combinations. A fourth property is that of repulsion ; this is not perhaps a very general one, though evident enough in some instances.

Vegetables and animals have these properties, and another added to them, called the living principle. This particularly active principle given to matter, is commonly called life.

Mechanical properties depend on the figure of matter, but life is independent of all form.

Vegetables and animals differ from each other in this ; a vegetable can be nourished, grow, and continue from a supply of common water only ; whereas an animal can only live by being nourished with animal or vegetable substances, as far as we are at present acquainted.

Water would seem to be an intermediate step between common matter and vegetables, and vegetables an intermediate step between water and animals. Dung, which is a mixture of animal and vegetable matter, increases the growth of plants. It is not known how far it is convertible into vegetable matter. Some suppose that it acts only as a stimulus.

Vegetables and animals have a power of changing those substances, which are appropriated to their nourishment, into a similar substance with themselves ; this is a property or power existing within them, and is owing to their living principle.

Vegetable and animal matter may be in two states, either living or dead.

Animal matter may be considered in three ways : its living powers, its chemical properties, and the manner of its reduction into common matter again, after having lost its life. The first of these prevents the two last from taking place.

When life is lost, the same modification of matter apparently exists as before, and if life consisted in such modification of matter, then it could not be lost until that was altered. Whether matter is alive or dead, we conceive it to be the same. For instance, the matter of which a muscle is composed we conceive to be the same, either when it possesses the living principle or not. Iron, when it has magnetism given to it, is not at all apparently changed, though it has a new property superadded : deprive it of this property, and it still continues iron the same as before. Magnetism may arise, perhaps, from a particular arrangement of the particles of iron.

Life also may arise from a particular arrangement of the most minute parts of animal matter. This may be illustrated by considering how glass is made. Glass is nothing but common earth, which receives its transparency from a particular

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arrangement of its parts, and when such particular arrangement is altered, and the glass becomes opaque, it is still as much glass as before. Glass, then, is only a particular modification of matter.

Organization is not necessary to life, it is only necessary to perform some action. Life has the power of putting that organ in motion.

Matter may be alive when its arrangement does not admit of action; capability of action depends on the arrangement of living particles; on their being so disposed as to admit of it. One arrangement of living particles gives one species of action, another a different species. Muscles have a power of growing, contracting &c. Tendons have no action but that of preserving themselves, growing, &c.

The active parts of animal solids require a degree of cohesion in their particles, without which no determinate action could be performed. That construction of particles which is adapted to motion is found in muscles; and as there is no part free from motion, all parts growing, &c., the muscular structure must be very general.

The simplest idea of an animal is the conception of a muscle, for without motion no animal could exist.

Living parts have a power of forming themselves, which is contrary to every other principle we are acquainted with. It may be conceived that three particles of living matter, when in contact, may perform some action: that is, if they are spherical, they may form a triangle with an intermediate space; and that they may have a power of contracting—such contraction or approximation lessening the intermediate space, which may appropriate a fourth particle of matter to the other three by getting between them. In like manner a fifth and sixth particle may be added, until there are a sufficient number to form an organ. But an organ cannot be formed by four or five particles, therefore in such case life must exist before the organ. If this conjecture is right, organization is a consequence of life, and not life a consequence of organization.

The active principle with which animal matter is endowed, called life, is more complicated than all others; therefore the most difficult to understand.

The actions of animals are of two kinds:—1st, the actions of life; 2nd, the actions of the will, which are produced by external impressions.

The actions of the first kind are those by which the body preserves itself, repairs its waste, &c.; these are permanent and never intermix, except in disease. An instance of this kind lately happened to myself. One morning I was attacked with a faintness, and looking in the glass I saw myself pale like a corpse: my pulse stopped and breathing, so far as it is vital and involuntary: I continued respiration by voluntary actions, and after struggling with the death of the internal actions for a complete hour, (during which time there was no pulse nor involuntary respiration), I recovered.

Respiration is partly voluntary, for we can breathe faster or slower at pleasure; and it is partly involuntary, as breathing is performed instinctively.

The stomach is the seat and centre of involuntary actions; it being disordered, every other part is affected; and affections of most other parts affect it: a blow on the head produces vomiting, and a

blow on the stomach will often instantly kill; and the death is so complete that every part of the body becomes instantly motionless, every muscular fibre at once loses its power of contraction, nor can be roused by any stimulus. If the head was cut off, the heart would act for some time.

The stomach is not affected by such trifling causes as the brain, but is rather influenced by the economy of the machine than by external causes. Its strongest affection is the want of nourishment, being conscious of some defect in the animal economy: but it is also concerned for the diseases and distresses of the different parts of the body, some of which it sympathizes with in a very particular manner, as the testis; or such parts as are naturally possessed of little sensibility, as tendons, ligaments, &c., and also involuntary parts. But it is less mindful of the diseases of parts possessing great powers of life under the influence of the sensitive principle, as muscle, &c.

The second kind of action is voluntary motion; as progressive motion, catching food, &c.

Animal matter, as above described, has other powers superadded:—the peculiar actions of the brain and nerves: so that there are two principles of life.

Many animals have no brain. When a brain is added, the animal has sensation. Brain is the seat of sensation, and nerves produce the connexion between it and the involuntary organs.

Nerves have three powers; one a passive power, and the other two active. The passive power is that of receiving impressions, out of which arise the other two: 1st, the feelings of the mind; 2nd, volition. The will is reasoning about actions. The feelings of the mind are involuntary. Brutes are ruled by what may be called the feelings of the mind: for instance, a man who is challenged to fight; reason determining him to go to the place appointed, but when arrived, his joints tremble, his stomach turns sick, &c.; effects of the feeling of the mind: thus the feelings of the mind are not subject to the will, but affect at once voluntary parts, exciting involuntary actions.

The voluntary actions are subject to disease, as the palsy, St. Vitus's dance: these morbid states arise from the brain and mind, and are not observed to take place in sleep.

There are two senses, taste and touch, which seem to have appendages: sickness at the stomach is a sense which belongs to taste. The sensation in the glans penis is not touch, it arises from a peculiar structure of the nerves, and may be called an appendage to touch.

Itching and tickling are not simple sensations, but particular actions requiring particular modes of impression.

Matter, to perform any mechanical purposes, only requires form and solidity; but life is independent of these. Life has been compared to the spring of a watch; but this depends on a continuation of parts particularly arranged; whereas life exists in every part equally, and as much when separated from the rest as before.

Magnetism, may assist in giving an idea of life. Magnetism by being added to iron, gives it a power of motion; not properly of motion within itself, but a power of moving other bodies towards itself. This property then is superadded to iron, for iron is as perfectly such, whether it has magnetism or not. It is a property which may arise

from a particular arrangement of the particles on the surface of iron: or there may be such a principle in nature, which it is fitted to receive.

The actions of life are totally different from those of mechanics or chemistry. Mechanical action must at all times be the same, let it be performed by whatever matter; the only difference that can arise is in the degree of solidity. Chemistry is the particular action of one kind of matter on another, which between any given two will be invariably the same. The actions of life differ from these in varying in such actions according to different circumstances. Many of the actions of an animal body may, however, be mechanical, but the principle of action cannot.

Matter undergoes gradual changes to become animalized, which appears to have been hitherto unsuspected. Animal matter being so different from others, apparently, in its properties, has been ranked apart from them, it being supposed totally different from all others. If, however, we take a view of its origin and gradual changes, it will not appear so totally different.

Water is converted by vegetables into vegetable matter, and vegetables are converted by animals into animal matter; thus common matter undergoes its changes into animal matter.

Vegetation seems to arise entirely out of water; Duhamel made an experiment which appears to prove it: he planted a vegetable in pure sand, and supplied it with distilled water; when it had grown to a considerable size he took it out, and found the sand, on weighing it, was as heavy as at first. Water only appears to enter into the composition of vegetables; but if water is scented, it will, in that state, be taken into vegetables, and taste of it; this is a proof that it passes into vegetables; but, then, it proves it does not enter into composition, for if it did, it could not be tasted. The nourishment of vegetables, however, seems to be increased by supplying them with animal and vegetable substances, as by manure.

The fermentation which takes place in animal and vegetable matter is that process by which those substances are again reduced to common matter.

This fermentation can never begin during the life of the part; and probably it can only take place in animal and vegetable substances.

Life is a principle of self-preservation. Action is not immediately necessary to life, for there have been instances of people living some time after all motion had ceased, as in drowning and in a trance. People have lived for weeks in a trance, all motion having ceased during that time. That simple life does not depend on action is instanced in vegetables, they often continuing a long time quite inactive, as trees in winter, and seeds. I have kept seeds for three years without their growing, and they have afterwards vegetated.

According to the different dispositions, different parts are formed.

Organization is matter particularly arranged, so as to be capable of producing certain actions.

Sensation is active and passive; it is performed by the brain and nerves. By passive sensation is meant the perception of any external impulse on the body; which is accomplished by the medium of the senses. Active sensation is the *will*, by which ideas are brought forth in the mind, independent of external influence on the body.

Thus, then, in animals there is a compound action, that of life and the *will*. The *will* has no power over the actions of the internal economy.

It is by this compound action that instinctive operations are performed.

The internal economy is ruled by the combined powers of nerves, brain, and life, connected with each other; each calls on the other to do its part. The harmony of the brain and nerves is health. This compound economy is set agoing as soon as sensation begins, which, perhaps, is not in utero.

Instinct is totally different from reason, for reasoning always terminates in consequences, whereas the actions performed by instinct have no final intention.

When the living principle wants nourishment, the feel of hunger is produced by the stomach sympathizing with every part of the body. In a child that sucks, when this affection is perceived, if its lips are touched, the *will* throws them into that action, called sucking. But if nourishment was not wanted, this effect could not have been produced. Thus, then, the living principle directs the *will*; but this alone is not sufficient, for it is necessary that there should be some sensation on the lips, for the *will* to direct them to act. Hunger is only the second principle of action, the living principle being the first. In this instance it is the parts about the mouth only that sympathize with the mind, for if any other part is touched, it does not produce the action.

Sensation joined with a want of the living principle is necessary to put particular parts in action. A bird that has eggs forming within it, as soon as it sees proper materials to build its nest, takes them and flies to a proper place to deposit them; and when it has laid its eggs, sits upon them. All this is done without any final intention, for it does every part as well the first time as ever after, gaining nothing by experience. In this instance the effects are produced in the same manner as in sucking. The bird has no sensation which can inform it of the formation of eggs, but from the sympathy which then takes place, when it sees the proper materials for its nest, it is directed by the *will* to take them up; and again, the sensation of seeing a tree causes it to fly to it, and in like manner to deposit the materials on a particular part of it. Thus, then, the operations of instinct are carried on, and the sensorium is the medium by which they are performed; first, by being directed by the living principle, and then directing the actions of the different parts to accomplish the necessary ends.

Sensation is a burden to life, and cannot be constantly supported for any considerable length of time. Sleep is the winder up of sensation. When perfect, it is a cessation of all sensation, present and past; that is, an entire stop to all memory. Those animals which have no sensation, probably never sleep. Sleep takes up about one-third of the life of an animal. By disease it is sometimes preternaturally increased, and sometimes diminished. Life can go on without sensation, but sensation is sometimes necessary for its well-being. The foetus in utero has not probably any sensation.

A swoon is a cessation of the actions of the living principle, when it is complete.

Fits are usually attended with a cessation of all sensation. I know a lady who frequently has

fits, in which she has a cessation of all active sensation, not having the least power of motion in any part; yet during that time passive sensation continues, for she knows everything that passes around her, hears, sees, feels, &c. as usual.

Disease is a preternatural action.

In all diseases the cause and effect ought to be carefully attended to. In some instances it is necessary to remove the cause to cure the disease. In other instances it is necessary to increase the cause to remove the disease.

THE STOMACH.—The principal distinction between animals and vegetables is that the former has a stomach, the latter not. This part is the agent which by hidden powers converts animal or vegetable matter into a part of ourselves; it is the true animal, every animal having it, whatever other parts are wanting. A polypus may be considered as one of the simplest animals, it is all stomach and parts of generation, the latter not being peculiar organs, but merely parietes of the stomach, which are its body, each part of which has the power of producing its like; its food is converted into chyle in the stomach, absorbents opening into this part take up the chyle, and these at some distance from their mouths become arteries.

The stomach is the seat of irritability, and connected with the whole body; in man the connexion is less intimate than that between the brain and the rest of the body, for any hurting cause applied to a distant part is always perceived by the brain. But every impression made on a part removed from the stomach does not affect it. Local injuries affect not the stomach, except they are so violent as to disorder the whole system in man, &c.

The stomach, so far as nourishment is concerned, is connected with every part of the body; and some parts, as the brain, testicles, and vital parts, have a peculiar connexion with it. It is a singular fact, that an injury done to tendinous parts, as a strain of the ligaments of a joint, produces sickness at the stomach, while the hurting of muscles, especially those of voluntary motion, makes little or no impression on it.

CASES

FROM THE EARLY NOTE BOOKS OF
SIR ASTLEY COOPER, BART.

EXTRACTED WITH PERMISSION OF B. B. COOPER, ESQ.

UMBILICAL HERNIA. OPERATION.

ON Tuesday, January 1st. I was called to Mrs. F—, who had an umbilical hernia, which became strangulated on Sunday, December 30th. It had been for many years irreducible, but a part of it could be returned. Some pea-soup she had eaten on Sunday, she imagined had caused the symptoms of strangulation.

The tumor was six inches in length, and inclined downwards. It was, as they always are, tense, but not red, but very painful when pressed. As various attempts had been made to reduce it without success, I immediately proceeded to perform the operation. She continued to lie on the bed.

A transverse incision was begun about three inches from the tumor,* and another at right angles with the former continued on to the apex. The skin was turned aside from the sac, and the former was so thin that the sac was immediately exposed. Having made a small opening into it, I passed a probe into the sac, and dilated it. No water escaped.

A portion of omentum enveloping a piece of the ileum was exposed; the former adhered to the sac, while the latter was placed in the centre of the omentum, was of a chocolate brown colour, and unadherent. I dilated the orifice of the sac downwards, in the direction of the linea alba, and returned the intestine; not by little and little with the finger, but by squeezing out its contents with my whole hand, and thus easily returned it.

The omentum I cut off, and was obliged to tie three arteries, which bled very freely. I left the rest to fill up the opening into the sac.

I made two sutures upon the wound, and applied lint and sticking-plaster upon it. She did well.

CUT-THROAT. RECOVERY.

Mr. S., a grocer at Nealwarth, in March 1799, cut his throat in two different places, namely, upon the larynx, and between the thyroid cartilage and os hyoides. The first was a very small opening, but the second would admit of the four fingers being passed into the pharynx. The epiglottis was separated, or at least a part of it, from the thyroid cartilage.

I brought the os hyoides† to the thyroid cartilage by five sutures, and made one on the integuments. Adhesive plaster was then placed on the wound, but so as to leave a small aperture for the escape of blood. He was ordered not to attempt to swallow, but on the following day he took, without permission, a considerable quantity of barley-water, and afterwards some more solid food, both of which he could now swallow with ease. The ligatures came away on the eighth day, and he never had a bad symptom. Great care was taken to support the head, and to bring it forward upon the chest.

TETANUS, WITH POST-MORTEM INSPECTION.

A man was admitted into St. Thomas's Hospital, who had a contused wound on the toe of his right foot. Ten days after his admission symptoms of locked-jaw supervened, of which locked-jaw he died on the seventeenth day after his admission.

DISSECTION.—*Abdomen.*—The stomach was found inflamed, and in three different parts slightly ulcerated. The colon had a spasmodic contraction in it, about four inches long, above the sigmoid flexure.

Chest.—The pericardium contained a small quantity of water, about an ounce. The right lung was inflamed, and the bronchial tubes contained purulent matter, but were not ulcerated.

Brain.—Was very firm and healthy in every respect. The body was opened two days after his death.

* A rough diagram shows that this incision was made between the base and the apex.

† This case shows, that as far back as the year 1799, Sir A. Cooper had applied in practice the idea of bringing together the os hyoides and thyroid cartilage, in cases of cut-throat. Mr. Bermond was not, therefore, as he imagines, the first surgeon who adopted this practice.—See No. xxviii. p. 22.

Throat.—The pharynx was much inflamed, from the nares to the commencement of the oesophagus, but more particularly on its posterior part. And at the place where it is attached posteriorly to the cranium, a small abscess was found which contained a few drops of pus.

The *Larynx* was healthy.

The *Oesophagus* was free from inflammation throughout its whole extent.

Remarks.—This dissection more fully evinces the strong resemblance which this complaint bears to that of hydrophobia.

In the latter I have always found a circumscribed inflammation in the pharynx.

In the latter I have always observed, both in dogs and men, a greater or less degree of inflammation in the stomach.

In both, all the symptoms seem to arise from an extraordinary irritation on the nervous system.

LACERATION OF THE LIVER.

A young man, in turning into St. Mary Axe, was run over by a gentleman's carriage. He was removed immediately into the shop of Mr. Benson, when he became very low, was soon unable to speak, and died in twenty minutes from the time of the accident.

Dissection.—The abdomen was very tumid. A black mark extended across the middle of the abdomen, which had been occasioned by the passage of the chariot-wheel. When the abdomen was opened, a large quantity of perfectly fluid blood escaped, and upon tracing from whence this had extravasated, I found the liver torn in four different parts, being thus divided into five pieces.

PARALYSIS OF THE BLADDER.

A man, aged more than eighty years, consulted me on account of having lost the power of discharging his urine. For more than three weeks he had been obliged to use the catheter for the purpose of drawing it off.

Suspecting from his age it was probably a disease of the prostate, I examined, per anum, but found no abnormal enlargement. I then introduced the catheter, (while he was in the erect position,) and found the urine passed readily off. This I did not at first understand,—reflection, however, convinced me that the pressure of the viscera on the bladder occasioned this. I therefore laid him on his back, and found the flow immediately stopped; while, on raising him, it passed off as before. I advised him to drink wine, to which he had not been accustomed, and applied a blister on his loins.

The irritation produced by the bougie was of some use, and as soon as the blister began to discharge, he began to amend, and got at length perfectly well.

PHYSIOLOGICAL EXPERIMENTS.

There is no stronger proof of the indefatigable industry of Sir Astley Cooper in the pursuit of professional knowledge, than the surprising number of physiological experiments which he performed, and of which he has left ample memoranda, and accompanying remarks. The following may prove interesting.

BRAIN WOUNDED.

OCT. 30.—YOUNG DOG.—Made a hole through the skull with a gimlet, and ran a probe through the brain. This was on the right side.

Effects.—The opposite side of the body became in a great degree paralytic, so that he lay on that side without power of turning himself. With the right side it struggled violently.

Examined.—The hole passed through the cranium into the brain, running into the side of the lateral ventricle.

ARTERY DIVIDED.

I divided the integuments of the thigh, and exposed the femoral artery—put a probe under it, and made a small opening into it. The blood came out in a continued stream, but with jets at each pulsation of the heart.

Conclusion.—The experiment proves that the artery is always full, but only forced on with more violence by the heart.

MUSCLES OF THE URETER AND GALL BLADDER.

I laid bare the ureter, and touched it with the point of a knife. It contracted like the intestine, having a vermicular motion.

Cut the gall bladder; it contracted quickly, and emptied itself.

EXPERIMENTS TO ASCERTAIN THE EFFECTS OF INJURIES TO THE SPINAL MARROW ON THE CIRCULATION.

Performed on Rabbits One Day Old.

Experiment 1.—Section of spinal marrow at occiput. It was cut with a needle inserted between the occiput and first cervical vertebra.

Effects.—Respiration ceased immediately. Pulse remained. The carotids were black and full. Artificial respiration was now commenced, and in five seconds the carotids became large, and of a florid red, and the pulse increased in force and frequency. On the respiration being stopped, the carotids became again black. After twenty-five minutes had elapsed, one foot was removed; the bleeding was red or black, according to the more or less inflation of the lungs.

Experiment 2.—The carotids and jugular veins of the same rabbit which was operated on in the former experiment were tied, twenty-two minutes after the section of the spinal marrow, and the animal then decapitated at the first cervical vertebra. After the head was separated, the pulse continued for many minutes, and at forty minutes, when the other foot was separated, there was a black or red hæmorrhage according as the lungs were inflated.

Experiment 3.—In the same rabbit, at fifty minutes after commencement of first experiment, the whole spinal marrow was destroyed by an iron probe being introduced into the whole length of the vertebral canal. The whole body became flaccid and deprived of motion in an instant. Pulsation of the heart no longer observable. At fifty-one minutes artificial respiration produced no effect. The thigh was cut at fifty-five minutes, but there was no bleeding.

The same experiments were performed on another rabbit without decapitation.

The whole spinal marrow was destroyed by means of a wire put in between the first cervical

vertebra and the os occipitis. The whole trunk became flaccid and dead immediately, and the pulsation of the heart was no longer perceived.

Artificial respiration neither restored the beating of the heart, nor occasioned bleeding when the thigh was cut.

Experiment 4.—Destruction of the cervical portion of the spinal marrow as low as the first dorsal vertebra.

The neck immediately became flaccid and dead; the fore extremities insensible, and the heart feeble. Artificial respiration began at three minutes; increased the pulsation of the heart in frequency and strength. The carotids became full and red.

Experiment 5.—Destruction of dorsal portion of spinal marrow, the wire being introduced from the first dorsal to the first lumbar vertebra. The head, neck, and posteriors continued alive. Respiration continued by diaphragm. In five minutes a foot was amputated, but there was no bleeding: at six minutes red bleeding followed amputation of the leg: at fifteen minutes the animal continued to live and breathe, and there was red bleeding.

This is not always the result, for often the destruction of the dorsal portion is followed by all the signs of arrested circulation.

Experiment 6.—Destruction of the lumbar portion: all the hinder parts of the body appeared dead, but the rest continued alive. At eight minutes the foot was amputated, but there was no bleeding: at fifteen minutes neither respiration nor the pulsation of the heart had ceased. The animal supported itself on its fore extremities.

All these experiments were repeated on rabbits ten days old.

Results, 1st.—Circulation was continued after division of the spinal marrow at the occiput.

2nd. Circulation was continued after decapitation, by aid of artificial respiration.

3rd. When the whole spinal marrow was destroyed, the circulation at once ceased, and artificial respiration produced no effect, neither did the thigh cut at three and at seven minutes bleed.

The results are the same when the spinal marrow is cut, without decapitation.

ON THE USE OF THE SPECULUM.

BY JONATHAN TOOGOOD, ESQ.

SENIOR SURGEON TO THE BRIDGEWATER INFIRMARY.

DURING a short visit to Paris in the summer of 1834, I had many opportunities of seeing M. Ricord use his speculum, and so satisfied was I of the great advantage of that instrument, that I determined to employ it on all proper occasions.

On my return, I found a patient in the Bridgewater Infirmary, who had been long suffering from a disease of the uterus, which was considered of a cancerous and hopeless nature. The speculum displayed thickening and enlargement of the cervix uteri, with chronic inflammation and incipient ulceration. The diseased parts were slightly rubbed over daily with the nitrate of silver, after which some charpie dipped in a saturnine lotion was applied, and in a month the patient was discharged cured, and has had no return of the disease since.

The next case in which I used it was that of a lady upwards of sixty, who had been suffering for

six years with pain in the back and region of the uterus, which increased to such a degree as the day advanced, as to oblige her to give up all exercise, and betake herself to her bed at a very early hour every evening. Occasionally she had some discharge of blood and mucus; her general health was much deranged. She had been long under medical treatment, and employed a great variety of remedies without deriving the least benefit, and had abandoned all hope of cure. An examination per vaginam had been made, but nothing could be learnt by it. I persuaded her to allow me to use the speculum, which discovered an excrescence about the size of a walnut, projecting through the os uteri, which at once explained the feeling of distension so constantly distressing, and all her other symptoms. Without withdrawing the instrument, I carried a pair of forceps, which I have had made for such purposes, through the blades of the speculum, and removed the tumor without difficulty. The part from which this vascular excrescence grew was touched daily with lunar caustic three or four times, when the patient was completely cured. It is now more than a year since this operation was performed, and the patient has continued in the full enjoyment of health.

Another case has lately fallen under my care, of a young and delicate lady, who was attacked with pain and tenderness in the region of the uterus, attended with considerable discharge, occasional sickness, and general constitutional disturbance; in fact, all the symptoms described by Dr. Gooch in his paper on "Irritable Uterus." She had consulted many eminent practitioners, and had submitted with exemplary patience to every plan of treatment which had been recommended, without deriving the least benefit. At last she placed herself under the care of a celebrated physician in London, whose attention had been exclusively devoted to female diseases, and although she strictly followed the plan laid down, and had the advantage of his regular attendance for six months, her complaint remained exactly the same at the end of that period. Under these circumstances she submitted to the employment of the speculum, which showed that her long-continued suffering arose from inflammation and enlargement of the cervix uteri and ulceration of its surface. The diseased parts were slightly rubbed over with lunar caustic, which was repeated every fourth day, and intermediately an injection of sulphate of alum was employed. These remedies, with attention to the general health, completely restored her in two months.

The advantages of this instrument are too obvious to insist on; it enables the practitioner to obtain a correct view of the disease of which he could only have an imperfect idea without its use, whilst at the same time it affords peculiar facility for performing operations and applying dressings. It has been said that patients will not submit to its employment, but I have never yet met with a case in which it was necessary to use it, in which the most delicate woman objected to its use. I have used it also in diseases of the rectum advantageously.

TABULAR ANALYSIS OF THE SYMPTOMS OBSERVED BY M. LOUIS,

IN 134 CASES OF

THE CONTINUED FEVER OF PARIS,

(Affection Typhoïde.)

By W. H. WALSHE, M.D., &c.

I some time since made, for my own use, a tabular analysis of the symptoms recorded by M. Louis, in his work on the Continued Fever of Paris, as observed by himself in 134 cases of the disease, and have found it of considerable utility, in affording a ready means of comparing the symptomatology of the form of the malady existing in the French capital, and that prevailing in other quarters. Believing it possible that this analysis might similarly serve the purpose of others, I venture to publish it.

I have followed the division of his cases established by M. Louis, namely, into the fatal, and those of severe or mild character terminating by recovery. One very remarkable feature of M. Louis' treatise is, that in order to establish satisfactorily the amount of importance to be attached to each symptom, either in itself or in the conditions of its development and course, as characteristic of the "typhoid affection," its author numerically compares therewith the symptoms of other acute diseases. This feature is preserved in the table.

The figures in larger type at the head of each division represent the number of cases in which the point referred to was examined; with the help of these the per centage, frequency, &c. of each symptom may be calculated. Thus, meteorism, or tympanitis, occurred in 34 of 46 fatal cases of the "typhoid affection," or in 73.9 per cent of such cases. The reason why the number of facts, considered in each division, varies, is sufficiently obvious.

TABULAR VIEW OF THE SYMPTOMS IN 134 CASES OF THE "TYPHOID AFFECTION."

Symp. toms.	Disease.	Frequency.	Period of origin.	Degree.	Duration.	Seat or character.
DIARRHŒA.	Fatal typhoid fever.	46 43	37 22 1st day 9 3d to 9th 6 11th 14th	32 Violent in 18 Moderate 7 Slight 7		
	Severe typhoid fever.	57 57	57 24 1st day 5 2d 8 3d 4 4th 2 18th to 30th	57 Violent in 14 Moderate 21 Slight 22	Ordinarily long, in some cases 40 or 50 days, or upwards. Mean = 26 days.	
	Mild typhoid fever.	31 29	31 12 1st day	21 Considerable in 4	Mean = 15 days.	
	Fatal pneumonia.	35 23				
ABDOMINAL PAIN.	Fatal typhoid fever.	39 39	36 16 1st day 3 3d rest unknown.	Commonly obtuse.	4 to 15 days, except when delirium.	Ordinarily iliac fossæ, especially the right, or the hypogastrium; sometimes extending over entire abdomen, sometimes round the umbilicus.
	Severe typhoid fever.	57 52	52 17 1st day		52 7 24 hours 39 2 to 18 days 6 1 month	
	Mild typhoid fever.	31 21	21 4 1st day		21 5 1 to 3 days 16 3 to 4 days	
	Fatal pneumonia.	35 9	9 3d to 11th day		9 4 temporary 5 2 to 12 days	

SYMPTOMS OF TYPHOID FEVER.

Symp. toms.	Disease.	Frequency.	Period of origin.	Degres.	Duration.	Seat or character.
TYMPANITIS.	Fatal typhoid fever.	46 34	Very variable.	34 17 considerable.	In 2 temporary, in the majority of cases, until death.	
	Severe typhoid fever.	57 40	40 4 7th or 8th day 1 9th 13 10th to 12th 12 later	40 7 considerable. 33 slight.	40 1 24 hours. 39 from 4 to 15 days.	
	Mild typhoid fever.	31 15	7 1 9th day 4 12th to 14th 1 3rd 1 6th			
	Fatal acute diseases.	80 6		40 2 considerable 4 trifling	Ordinarily 1 or 2 days.	
EPIGASTRIC PAIN.	Fatal typhoid fever.	22 16	16 8 at outset 8 later		Very variable, from 2 to 20 days.	Spontaneous, or under pressure; doubtful whether in stomach or colon.
	Severe typhoid fever.	43 30	30 8 1st day 2 2d or 3d 20 6th to 25th	Commonly slight	30 3 1 or 2 days. 27 4 to 16	30 In 4 subjects, produced by pressure only.
	Mild typhoid fever.	31 13	13 3 1st day rest later			
	Fatal pneumonia.	24 11	11 4 1st or 2d day 7 5th to 12th		11 3 momentary 8 5 to 12 days	
NAUSEA.	Fatal typhoid fever.	21 12	12 3 1st day 9 later			
	Severe typhoid fever.	43 19	19 6 1st day 13 5th to 35th		19 4 1st day 15 3d to 20th.	
	Mild typhoid fever.	31 6	6 2 1st day 4 later			
	Fatal pneumonia.	24 8	8 3 1st day 5 later		8 4 momentary. 4 4 to 10 days.	
VOMITING.	Fatal typhoid fever.	20 5	Variable.		Variable.	
	Severe typhoid fever.	43 20	20 3 1st day 2 5th to 6th 15 9th to 35th		20 4 1 or 2 days. 16 4 to 15 days.	
	Mild typhoid fever.	31 4			4 1 momentary. 3 2 to 9 days.	
	Fatal pneumonia.	24 8	8 4 1st day 4 later		8 2 momentary. 6 2 to 5 days.	(To be continued.)

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, MAY 1, 1841.

THE proceedings of the Provincial Medical Association, in connexion with Medical Reform, have of late been much referred to, and a resolution passed at the Southampton Meeting frequently quoted. The tenor of the resolution, as well as of the proceedings of the Association generally, as it appears to us, has not been properly comprehended, and inferences have been drawn as to the opinions of the members, which may be correct, or otherwise, but which are scarcely warranted by the public acts of the Association. We have been told much of the Association having pledged itself to certain definite measures of reform, and, upon the assumption thus made, arguments have been founded, and a line of conduct marked out for the council, committee, delegates, and other official persons. The zealous and well-intentioned individuals who, carried away by the superabundant activity of their own mental organization, have attributed hasty decisions to the Association upon a subject so difficult, and at the same time of such vital interest to the Medical Profession, have no doubt been led into error by a want of information as to the actual workings of the society, and a misconception of the original purposes for which it was instituted. Amongst the objects contemplated by the founders of the Association, and set forth in the prospectus circulated at the time of its institution, the maintaining of the honour and respectability of the profession was one of the most prominent. The mode of providing medical relief for the sick poor, the improvement of medical education, and the placing of the whole Medical Profession under such regulations as shall secure to its members a liberal constitution of their body, and due protection in the exercise of their individual and corporate rights, are questions therefore which, in virtue of the original plan of the Association, should engage a considerable portion of its attention. It must, however, be borne in mind, that the general meetings of the Association cannot be of very frequent occurrence, nor, when they are held, can they be protracted to any lengthened duration. The time which can be allotted to the discussion of any subject, of whatever interest or importance it may be, is necessarily very limited, and altogether inadequate for a full consideration of its merits. Much of the business of the Association must necessarily there-

fore be transacted by the officers, council, and special committees, while it is the province of the general meetings rather to confirm or reject what is brought before them by the council, than to adopt without consideration measures of importance introduced by a hasty discussion, and pressed upon them for more hasty decision. The general meetings are held at places often remotely situated in point of distance, and many of those members whose standing and general acquirements render their opinions of great weight, are prevented from giving regular attendance as each succeeding anniversary period comes round. It by no means follows, therefore, that the decision of a general meeting upon a question thus hastily raised and discussed—it would be futile to say considered—in the north, or the south, would necessarily be in accordance with the views of the members resident in the eastern or western districts, or could in any way be considered to be the expression of the matured opinions of the Association at large. A difficulty of this nature seems to have been early felt in the transaction of the business of the Association, and accordingly, at the second general meeting, held at Bristol, in the year 1833, we find the following regulation passed:—"That in future, notice of any business to be brought before the anniversary meeting, be given to the secretaries three months previous to the anniversary meeting, and be circulated with the proposed report of the council." This regulation is a wise one, and well calculated to meet the peculiar difficulties of the case. It provides for making known to all who may feel interested, the special questions to be submitted, allows time for previous consideration, and prevents the Association from being taken by surprise, and becoming in any way pledged to measures which admit neither of consideration nor discussion at the anniversary meetings, when the time is usually so fully occupied with the general business as not to allow of prolonged discussion upon any subject. In conformity with the spirit of this rule, the council, in drawing up the annual report, which is always circulated for some weeks previous to the general meeting, have usually alluded to the subjects of interest which were to come before the Association, while the resolutions arising out of them, to be submitted to the Association, have been carefully worded in such terms as it was thought likely would meet the views of the majority of the members, and at the same time secure the enacting of such regulations as in the opinion of the council would work best in furtherance of the interests and objects of the Association. A better example of the necessity of abiding by well-considered measures, in preference to the hasty adoption of

apparent amendments, could scarcely be afforded, than one which arose at the Southampton meeting in July last. The question, in itself a matter of no real importance, though it gave rise to the expression of some feeling in the general meeting, had been already provided for in the original report of the council. A hasty alteration, however, made in this report, at the suggestion of a member who was necessarily unacquainted with all the bearings of the original document, led to an omission which gave offence to some members of the Association; and to avoid the loss of valuable time, and obviate other inconveniences, it became necessary to remedy the omission by an express motion, which was certainly not consonant with the feelings of many of the members present, and in many respects altogether uncalled for. Some persons may be disposed to think that it would be an advantage were it practicable to convert the Association into a deliberative assembly, but we are ourselves inclined to believe that it possesses more weight under its present form. Its decisions are necessarily the result of much reflection on the part of those who are most intimately acquainted with the opinion of its members at large, and at the same time are rather confirmatory than anticipatory of the general feelings of the profession. The officers and council, impressed with the responsibility which attaches to them, are anxious to provide in every way for the prosperity of this great and widely-extended institution; they feel it to be their duty not hastily to decide upon what is fitting to be done in any future contingencies which may arise, but are rather desirous of giving effect to the general wishes of the members, as regards the present and the past. Thus, with respect to the poor-law medical relief, the opinions and feelings of the Association have been ascertained and decidedly expressed; the council therefore cannot hesitate to do all in their power to give effect and weight in the proper quarters to these opinions, and to take every measure for placing the whole subject on a corresponding footing. With respect to the reform question, the way is perhaps not yet so clear. Certain principles, it is true, appear to be generally admitted,—that a minimum preliminary qualification should be required of every candidate for a license to practise,—that an efficient representative constitution should be secured to the profession, and that its members should receive due protection in the exercise of their recognized rights and privileges. These are questions which have been affirmed by general meetings, and which, therefore, the council feel bound to do all in their power to carry out. But with respect to the express form according to which the constitution of the profession is to be

modelled, the actual amount of the education to be provided, or the degree of protection to be afforded, the only indication which the council have hitherto received to direct them, arises from the almost unanimous rejection of every measure which has hitherto been proposed. Under these circumstances it would be idle for them to think of supporting any express proposition, or series of propositions, or of attempting to lend the weight of their influence, backed by the name of the Association, to this or that specific plan. Further information is evidently required, and further consideration of the leading principles to be taught, and the means of carrying these out, before any correct conclusion can be come to. The council are, therefore, right in their declared purpose of holding frequent meetings, for the purpose of receiving and considering the various plans which may be proposed, and furthering as far as possible the recognition of the general principles laid down. Above all, they are right in refraining from pressing the immediate adoption of imperfect and unsatisfactory measures. Hasty legislation is far worse than no legislation at all, and we would rather see the necessary remedial enactments postponed, until the more intelligent members of the profession are pretty generally agreed as to what is actually required. That some measure of Medical Reform must ultimately, and before long, be carried, we cannot doubt. To be a satisfactory, efficient, and lasting measure, it must be based upon such principles, and modelled after such a form, as shall meet with the approbation and deserve the support of all classes of the profession, and be respective, not subversive, of every just and equitable right and privilege which they now possess. Upon a future occasion we propose to show that the proceedings of the Association, up to this period, have been strictly in accordance with the principles here laid down. Each of the three sections of the Reform Question—education, protection, and government—have come under their consideration, and decided steps have been taken to mark their sense of their respective importance. In the subsequent allusion which we shall have to make to these points, it will be found that, while on the one hand the council have never shrunk from the open and fearless expression of their own views, they have endeavoured faithfully to fulfil the trusts reposed in them by the Association. In all cases they have aimed at giving effect to the recorded decisions of the general meetings, and in none have they been more anxious to be guided by these decisions than in the important questions connected with Medical Reform.

IN an excellent introductory lecture, recently delivered at Guy's Hospital, Mr. Morgan "cautioned the students to be very careful of what they said respecting the nature and treatment of a patient's case, either in his presence, or in the presence of his relations or friends." This caution might be extended with much benefit to many who are actively engaged in the duties of their profession. From want of reflection, or through motives to which we are unwilling to allude, some medical men are addicted to the custom of invariably criticising every mode of practice which has not received the sanction of their own experience. This habit cannot be too strongly condemned; it indicates, on the part of the critic, a degree of self-conceit which is unpardonable in a well-educated man; it is unjust towards those who may have adopted, conscientiously, a different line of practice, and it frequently disturbs domestic peace, by exciting unfounded suspicions and unavailing regrets.

An illustrative case, to which our attention has been directed by a correspondent, recently occurred at Coventry.

A Mrs. Brown, having died on the first of April, her husband went to the registrar for a certificate of the registry of her death, and in reply to a question relating to the cause of death, stated, that "she was murdered by Dr. West." The registrar communicated this observation to Mr. West, who immediately took the necessary steps for having the case carefully investigated before the Coroner. In the course of the lengthened investigation which took place, it appeared that Mr. West had been called to the accouchement of Mrs. Brown on the 4th of March, but did not arrive until after the birth of the child. Excessive flooding had occurred, and the patient remained in a feeble state for two or three weeks, during which time she was attended by Mr. West. On the 28th she was suddenly seized with symptoms of effusion within the cranium, and died in three days. On the 30th of March Dr. Arrow-smith was called in to see the patient, who was lying in a state of insensibility; the doctor inquired "if leeches had been applied to the head, or if the hair had been taken off? and, on being told that these means had not been employed, remarked that it was strange treatment to have omitted these and similar remedies."

This remark, it appears, led Mr. Brown to conjecture that "his wife was murdered by Doctor West." Several medical men were examined by the Coroner, and all concurred in the opinion that Mr. West's treatment of the case was neither improper nor injudicious. The jury immediately returned a verdict of "died, by the visitation of God, of serous apoplexy."

"This practice," says our correspondent, "of condemning the treatment of other medical men, either openly, by innuendo, or by unnecessary alteration of the previous treatment, is, I fear, too common amongst the members of our profession; but surely it is one which cannot be too strongly reprobated, nor ought the opportunity to be lost of warning the profession against such a practice, by directing attention to the present example of its mischievous effects."

METROPOLITAN FREE HOSPITAL.

TREATMENT OF STAMMERING.

SEVERAL patients afflicted with stammering have been operated upon in various ways by Mr. Bennett Lucas, at this institution, within the last month. In some, the genio-hyo-glossi muscles were divided in the manner already so fully described in the pages of this journal; in others, the tonsils were either partially or totally removed, together with the uvula, and in a few cases the uvula alone was excised either partially or totally. The greatest care and attention was bestowed on each case, before proceeding to any operation, with the view of determining that which seemed to offer the greatest amount of benefit to the sufferer, and several cases in which a surgical operation of any kind was deemed inadmissible, from its not holding out a prospect of cure or relief, were subjected to moral treatment, and treatment by medicine, according to the views entertained of their nature.

From what we have already witnessed at this institution, in the treatment of stammering, we are satisfied that the causes of this infirmity are many, not merely as regards an organic defect in any of the organs concerned in speech, but also as regards the temperaments, the constitutional derangements, and the habits of the individuals; and that, in selecting a case for any operation, the nicest discrimination is required to be exercised.

Two as interesting cases as can be selected in illustration of these remarks, are the following.

John Watts, æt. 16, applied to be relieved of stammer, on the 20th of March, 1841. This patient is afflicted with chorea, and has been so for the last six years. His countenance is pale and full, and has somewhat an idiotic expression, but his intellect is clear and undisturbed; his eyes are of a dark hazel, and the right is affected with temporary strabismus, being frequently turned upwards and outwards. When he stands for a few moments, he is seized with shivering, and the movements of the upper extremities become frequent and involuntary. He has not suffered at any time from convulsions, has had no headaches, his functions are healthily performed, and there is no evidence to suppose that his present symptoms have had their origin in criminal abuses.

This patient's stammering is very intense. It is painful to witness his attempts to describe his sufferings. The pronunciation of any word is alike difficult to him, and when he perseveres in his attempts to speak for some minutes, the movements of his body become more severe and uncontrollable, and his face congested.

As no deviation from natural structure and form in the organs concerned in speech could be detected, and notwithstanding he was most desirous that some operation should be resorted to in his case, no attempt was made to relieve him by such a proceeding. It was agreed in consultation with Dr. Lilburne, one of the physicians to the institution, to give the patient a grain of calomel night and morning, and to continue the same until his gums became slightly affected. The treatment has been persevered in to this date, April 20th, and the improvement in the general condition of the patient, and in his pronunciation in particular, is decided and marked.

March 27.—Gums affected, speaks well, has lost his tremors. Astringent gargle.

March 16.—Mary Arnold, *æt.* 16, an intelligent girl, has been the subject of stammer since she was five years old. The affection is worse at one time than another. Mr. Lucas examined this patient's mouth; and her tongue, tonsils, uvula and isthmus faucium, were naturally developed. She complains of sense of constriction at the larynx, and occasionally a difficulty in swallowing.

She finds much difficulty in pronouncing the commencing word of any sentence, which is, however, relieved, and sometimes removed, by making her take a deep inspiration before she attempts to speak. The presence of strangers, and any agitation of mind, increase her stuttering.

Her countenance and lips are pale. She menstruated some time ago, but since then her uterine functions have been performed irregularly and scantily. Her bowels are often constipated, and occasionally are in the opposite condition.

Under the use of the following medicines, the general condition of this girl's health has been progressively improving to this date, April 20, and her stammering is benefited in a marked manner.

Compound rhubarb pill, one drachm: divide into twelve pills. Two to be taken twice or three times a week.

Compound iron mixture, compound aloetic mixture, of each three ounces. Two table spoonfuls to be taken morning and noon.

April 1, 1841.—Mr. Lucas removed from the tongue of a young man, this day, a portion of the organ as recommended by Professor Dieffenbach; but the proceeding was accomplished in quite a different manner from that practised by the learned professor. The particulars of this interesting case we hope to be enabled to lay before our readers in our next number. Numerous professional gentlemen were present at this operation, which was performed at the Free Hospital, Carey-street.

On the 18th of April, we saw this patient, who was perfectly recovered from the effects of the operation, and said to be benefited, in his ability to articulate, in a remarkable manner.

The following is an extract from a communication recently addressed, by M. Amussat, to the Academy of Sciences, on the same subject:—"The number of patients on whom I have operated, up to the present period, is thirty-three; and of these only three were females. We have not, as yet, sufficient facts whence to draw very accurate deductions; but I may observe, that

hereditary disposition and convulsions during infancy seemed in some cases to have been the cause of the infirmity.

"The results which I have obtained from division of the genio-glossi muscles are perfectly satisfactory. In some cases the benefit followed immediately on the operation; in others, after a few days only. Some of the patients were so completely relieved, that it was difficult to discover any trace of stammering in them; in other cases the results were not so complete: finally, in six cases, the first step of the operation, *i.e.* division of the *frænum lingue* and tissues, down to the muscles, was sufficient to remove the impediment. I should put surgeons on their guard against an effect of the operation of which I have already spoken, *viz.* hæmorrhage, which may occur either during or after the operation. To arrest the bleeding, iced water may be employed, or, if necessary, compression with the fingers against the inner surface of the chin. In one case, the bleeding was so obstinate, that I was forced to place a bit of wood wrapped up in lint over the wound, and apply pressure on it."

Apropos of hæmorrhage, we have been informed, on the authority of a surgeon recently arrived from Germany, that M. Dieffenbach has already lost one patient from hæmorrhage, after his operation.—*Eds. Prov. Jour.*

FOREIGN HOSPITAL PRACTICE.

VARICOSE TUMOR SIMULATING AN ANEURISM OF THE BRACHIAL ARTERY.

JEAN HEBERT, *æt.* 30, employed as a water-carrier, was admitted into hospital on Monday the 6th instant, to be treated for a tumor of considerable size, which had suddenly appeared upon the upper arm of the right side; the surrounding parts were greatly swollen, the integument over the tumor, and to some extent around, was of a dark-red colour. The patient, who is of rather robust constitution, gave the following details as to the origin of the accident which produced the above appearances. On the Saturday previous to his admission, whilst lifting a bundle of wood, one of the pieces slipped out and struck the middle of the arm on the inside, causing extreme pain, swelling and discoloration of the part, but without any breach of surface; he applied a poultice that evening, and felt much better the following day. On the Monday the swelling and other symptoms had so far diminished, that he was able to resume his ordinary occupation; however, on making a fresh effort, "he felt something crack in the arm," followed by considerable pain, and in a few seconds the tumor already described made its appearance, but not at the seat of the original accident, but about two inches higher up the arm; finding it altogether impossible to make use of the arm, he was brought by his friends to the hospital. An application of ice was made to the tumor in the first instance, and on the following morning the patient was seen by M. Roux, who examined the arm with particular attention, observing that the case was one of special interest, and likely to puzzle a superficial observer or persons unaccustomed to accidents of this description, and also demanding

sound discrimination as to the diagnosis and treatment. Having questioned the patient, he pressed and felt the tumor in various points, with the view of discovering a pulsation, but found none; he examined the artery at its exit from the axilla, at the wrist, as also below the fold of the arm; the pulse at these different situations was regular and perfectly isochronous with that of the other arm. M. Roux said this was not a case of aneurism; although many of the bystanders had expected a different judgment, and seemed somewhat surprised when the surgeon, instead of proceeding to an immediate operation, merely directed compresses, wetted with a solution of muriate of ammonia, (3ij. of the latter to ℥jss. of water,) to be frequently applied to the tumor.

Jan. 8. At the visit this morning the patient said he felt much relieved, and had slept tolerably well; the tumor had diminished since the previous evening; it still, however, presented the same consistence, as also its dark red colour. M. Roux again examined the part minutely, but not the slightest pulsation could be discovered at any point of the tumor; the pulse at the wrist was neither irregular nor laborious, but perfectly isochronous with that of the opposite one.—Continue the same discutient lotion directed on the former day.

At the Clinical Lecture, after the visit, M. Roux took an opportunity of calling the attention of the class to the above case, observing that it was one of the utmost importance, so much so as to induce him to digress from the subject of the last lecture, in order to make a few remarks upon a branch of surgical practice of vital interest, and whilst yet the facts were fresh in their recollection. The case he had now to refer to was extremely remarkable; and although he had no difficulty in making up his mind from the first, as to the exact nature of the morbid appearances which the tumor presented, that is to say, after he had minutely and cautiously examined all the symptoms, still it was of a description to impose upon many, who might have been led to form too hasty a diagnosis, or upon *primâ facie* evidence, inducing them to take for a false diffused aneurism, what was nothing more than a varicose tumor; had he even had any doubt as to this conclusion, the first time he saw the tumor, the second examination of it that morning, would have removed all hesitation; in fact, it was a mere varicose tumor, resulting from the rupture of either the *basilic vein* or one of the *venæ comites* of the arm. It was right to remind them that the patient had in the first instance received rather a severe blow on the middle of the upper arm, causing a simple contusion without any breach of surface. It, however, sometimes happened that the parts originally struck did not suffer the principal injury, but that the latter was produced at a distance from the point where the blow, &c. were first felt. The man had nearly recovered from the effects of the original accident, when in making a fresh effort he suddenly felt a violent pain in the arm, and in a few seconds a tumor formed at the inner part of the arm, occupying nearly the entire upper third near the shoulder; the tumor was very prominent and compact, having a sharply-defined point, at which a fluctuation could be felt. The skin over the tumor and surrounding parts was of a reddish brown, and not of a livid purplish colour, as in diffused false aneurism; the tumor was pressed in various directions without causing any

pain; it was not diffused but limited, and was evidently the result of an extravasation of venous blood; no symptom of phlegmon could be perceived—no inflammatory boundary, no dark purple, marble colour of the skin, as generally seen in diffused false aneurism. Although the veins were liable to rupture as well as the arteries, such accidents as the former were of very rare occurrence. The lesion in the present case ought, in his opinion, to be termed diffused false varix, for the same reason that a tumor from a rupture of the artery has received the denomination of diffused false aneurism. It was of the utmost importance that surgeons should be well aware that wounded veins could furnish as great a quantity of blood and in as short a time as arteries injured in the same way, so as to create a reasonable doubt whether the extravasated blood was supplied by the former or the latter. This fact reminded him of a most instructive case which occurred at this hospital some years back, when the late lamented M. Boyer was still in the vigour of his genius. A patient was brought in with an oblique fracture of the thigh, accompanied with rupture of the crural vein, which had been pierced by one of the sharp fragments of the femur; the thigh was enormously swollen, the skin of a dark purple colour, fluctuation evident, and caused by extravasation of blood under the fascia. Judging from this train of symptoms, it was impossible for M. Boyer or himself to determine whether they had to do with a false diffused aneurism, or with a mere extravasation of venous blood; had they been positively certain that it was of the latter description, they should never have cut down upon the tumor, as under the circumstances they thought it their duty to do. It was well known in practice that such extravasations of venous blood are speedily reabsorbed with the aid of discutient applications; on the contrary, when the extravasation proceeds from the rupture or wound of an artery, the case was extremely urgent, and if immediate steps were not taken for securing the vessel, gangrene must soon set in, and be followed by a fatal result, especially if the artery were of considerable calibre. In the case just referred to, upon making the incision in the thigh, they discovered that the effused blood came from the wounded crural vein. The extravasated fluid having been removed, a further effusion of blood was prevented by introducing a quantity of lint into the opening in the thigh. There was no such reason for doubt in the case of varicose tumor they had seen that morning, and which, he was happy to say, was going on well: the swelling had already diminished, and would in all probability be entirely dispersed by the means above described. Had he made an incision in this case, it might have been attended with fatal consequences, by giving rise to a more extensive hæmorrhage. In the present instance the tumor had not the characteristic appearances of diffused false aneurism; it was limited, and without that dark purplish marble-colour so remarkable in the former. Besides, it had no pulsation; and although this sign was not always present in diffused false aneurism, still a throbbing was always perceptible, but in the present case nothing of the kind could be discovered. Moreover, in diffused false aneurism, the pulse below the tumor is found to beat with difficulty, (a laborious pulse;) but even in cases where the circulation is not much ob-

structed, the pulse still evinces the extreme slowness with which the blood flows through the artery on the affected side, whilst that in the opposite limb is perfectly free: the pulse in the present instance was free and regular, and exactly the same at both wrists. It was also worthy of remark in the case under consideration, that the rupture of so large a vein should have taken place without being accompanied with the slightest external breach of surface.

Jan. 9. The patient continues to improve, the tumor has considerably diminished, the dark reddish brown-colour of the skin is fading, and the part is much less tense than at the visit yesterday morning. The discutient lotion was ordered to be continued, and the case in a few days terminated in a favourable manner.

CONGENITAL FISSURE OF THE SOFT PALATE.

ANNETTE CHARLES, æt. 21, was admitted on the 12th Jan. to undergo an operation for the removal of this deformity, which had existed from her birth, and was attended with considerable difficulty of speech, and imperfect articulation of sounds. On examining the patient, who in other respects enjoyed excellent health, M. Roux recognised a vertical division of the soft palate, to the extent of an inch in length, and reaching nearly to the uvula. She consented willingly to the operation, which was performed on the 17th inst., in the following manner:—The operator, M. Roux, having arranged the necessary instruments, consisting of a *porte-aiguille*, (something similar to a *porte-crayon*,) a common dressing forceps, several curved needles armed with sutures of three or four waxed threads, a narrow probe-pointed straight bistoury, a pair of crooked scissors, &c.; the patient took her seat on a low chair opposite the surgeon; an assistant held the patient's head slightly inclined backwards. One of the curved needles, with its ligature seized in the *porte-aiguille*, was then passed by the operator through the aperture in the palate, and introduced from within outwards, into the lower end of the right side of the fissure, at about a quarter of an inch from its edge; the needle having pierced this portion of the palate, the operator seized it with the common forceps, and drew it with the ligature to the outside; a similar proceeding was adopted at a corresponding part of the opposite flap, for passing the other end of the ligature. A second ligature was passed on the right side, a little above the first, but, on piercing the corresponding point of the opposite side of the fissure, the curved needle snapped, (an accident likely to occur in this operation); however, the operator with great coolness withdrew the ligature with one portion of the needle, and having discovered the other end at its insertion, withdrew it: he then introduced another needle and ligature, which were carried through without further difficulty. The third ligature was passed through near the upper extremity of the right border of the aperture, and finally, the other end was introduced at the corresponding point of the opposite margin, thus concluding the first stage of the operation. The patient was allowed to rest for a few minutes.

In the next place, the operator commenced paring the edges of the flaps, so as to form a

wound capable of healing by the first intention; having seized the lower end of the right flap with a dissecting forceps, he first cut a small portion with the curved scissors, and then pared off the outer rounded edge as far as the upper extremity of the fissure; the edge of the opposite flap was resected in the same manner, commencing from below, and terminating at the upper end of the fissure. The patient was again allowed to rest for some time, and having rinsed her mouth several times with cold water, the operator proceeded to the ligatures, commencing with the lowest, on the right side; he drew the ends of the thread gently together, and having formed half the knot, it was held tightly by means of the common dressing forceps, applied by one of the assistants, until the operator had finished. The other ligatures were secured in the same manner, and the ends of the thread having been cut off close to the knots, the fissure which existed previous to the operation had now nearly disappeared, leaving merely such an opening as is seen in ordinary wounds healed by the first intention. At the conclusion the patient appeared perfectly composed, and a change had already taken place in her voice, which was more distinct. The girl was directed to observe strict silence, and an absolute abstinence from all kind of food or liquids during four days, and not even to swallow her saliva. The only nourishment allowed was in the form of lavements, composed of soup and yolk of egg.

The difficulties encountered in this operation are—the narrow compass within which the surgeon has to act; the constant efforts at coughing, excited by the irritation of the ligatures, and finally, the risk of breaking the needles, requiring the utmost caution on the part of the operator, but which, as in this case, does not always preclude their snapping, either from their being too highly tempered, or from their curved form, and the pressure necessary for carrying them through the edges of the fissure.

18. The patient is tolerably well, although she had not slept during the night; the edges of the wound are in perfect apposition. Strict diet, and lavements, as directed yesterday.

19. Doing well; slept some hours during the night—the wound in a favourable state. Same treatment as on the previous day.

20. No unfavourable symptom.

21. This morning the patient, who was going on well, was allowed, for the first time since the operation, a small cup of thin gruel, to be swallowed slowly, and only a teaspoonful at a time—nothing else to be taken by the mouth during the rest of the day.

22. The ligatures were cut off with a pair of scissors, when the lips of the fissure were found in perfect apposition; previous to their removal, a small cup of thin broth was given to the patient, with the same precautions as yesterday.

23. It appears that during the previous day the patient had experienced considerable nausea, and had vomited a small quantity of phlegm mixed with blood; this morning, however, she feels tolerably well, and the wound is in a satisfactory state; it had separated to a very trifling extent at the upper part, no doubt from the effort of vomiting, but not so as to render the success of the operation in any way doubtful. M. Roux observed, that this was one of the bad effects of

strict abstinence in an individual previously in the enjoyment of good health, and taking regular nourishment: however, it was an indispensable part of the treatment, as the mere act of swallowing the saliva during the four first days after the operation would be sufficient to disturb the ligatures, and consequently render vain the hopes of the patient and of the operator.

THE NORTH OF ENGLAND MEDICAL ASSOCIATION.

THE third general meeting of this important union of the medical profession, recently established in the North of England, was held on Wednesday, April 7, in the Register Buildings, Sunderland. Shortly after one o'clock, the chair was taken by Dr. Headlam, of Newcastle-upon-Tyne, the President of the Association.

The Chairman having opened the business of the meeting, in a speech for which we regret that we have not space,

The Secretary proceeded to read the Report of the council, of which we give an abstract:—172 members have been enrolled since the establishment of the association. The number is now 169—one having died, and two removed from the district. The association was formed to obtain, in conjunction with similar bodies, the correction by the legislature of a system of misgovernment; and it has taken a prominent part in the endeavour to procure an amended medical polity. But it also aims at the advancement of medical science, and the protection of local interests; and the council recommends that sectional meetings of its members be held in different parts of the district, to promote these objects.

Since the last meeting of the association, the question of Medical Reform has made rapid progress. Shortly after it was held, the Medical Bill of Mr. Warburton, and the outline of a Bill by Mr. Hawes, were published. In framing them, their authors seem to have been actuated by a conviction that the present medical institutions of the country are wholly inadequate to provide an efficient system of government for the regulation of the profession.

The council holds it as a favourable omen, that the subject of Medical Reform has occupied the serious attention, within the present year, of some of the most distinguished ornaments of the profession—Professor Kidd of Oxford, Sir B. C. Brodie, Mr. Green, Sir Charles Bell, Dr. Forbes, Dr. Barlow, Dr. Macartney, Dr. Marshall Hall, Mr. Carmichael, Mr. Crosse, &c. Public bodies, also, have taken up the question—The Colleges of Physicians of London and Edinburgh, the University of Glasgow, the Colleges of Surgeons of Edinburgh and Dublin, the Apothecaries' Company of London and Dublin, and the Professors of Trinity College, Dublin. Great diversities exist in their views, but all agree that considerable changes are required. Governed by different laws, and having separate and clashing interests, their differences of opinion are not surprising. To propose a measure that would satisfy them all, would require more legislative skill than can be looked for, especially on a subject so deplorably neglected by the ruling authorities of the empire. Some of the documents put forth by these bodies are much

more liberal and enlightened than others, and, in particular, the report of the Edinburgh College of Surgeons. That of the College of Surgeons of Ireland deserves mention, and some parts of the reports drawn up by the Edinburgh and London Colleges of Physicians contain just and liberal views.

The reporter next alludes at some length to the proceedings of the medical conference, and to the principles of Mr. Hawes's bill.

The council approves of the direction of medical affairs being placed under the superintendence of a governing body, which shall be responsible to Parliament and to the profession.

The council also approves the second principle of Mr. Hawes's bill. The responsibilities of medical practice should not be confided to any man not possessed of a certain definite qualification. At present, one standard is required by one college or hall—another standard by another—and there is an unfair and injurious competition, by which medical education is limited and degraded—the character of the profession lowered—and the safety of the public endangered. To correct this state of things, a *minimum* qualification must be fixed; which will insure the general proficiency of members of the medical profession, without preventing individuals from rising to a still higher qualification, and practising as physicians or surgeons, as they may think proper.

The registration of all qualified practitioners is an important feature of Mr. Hawes's bill, and it is unquestionably of great importance that the public should have access to a faithful record of the names of those persons who have qualified themselves by education for the responsibilities of medical practice; but the council is of opinion that Mr. Hawes's plan may be simplified, and that the registration of a practitioner should not subject him to an *annual* payment.

The council recommends the association to petition the House of Commons to sanction the *principles* of Mr. Hawes's bill.

It is understood that the College of Physicians and Surgeons, for some months past, have been engaged in the consideration of changes in their respective constitutions—a movement affording unanswerable evidence of the necessity of great and fundamental alterations. Measures emanating from such bodies, comprising many of the most enlightened members of the medical profession, will receive respectful attention in all parts of the kingdom. But the council cannot recommend the members of the association to pause in their efforts, until the colleges have brought forward their plans. Those corporations have long known that the profession was dissatisfied, yet have they permitted themselves to be anticipated in the work of reformation by two Members of the House of Commons, entirely unconnected with the medical profession.

So far as the designs of the London corporations are known, they aim at the extension of their powers.

The jurisdiction of the College of Physicians now comprehends the examining and licensing of persons desirous of practising as physicians in London, and within seven miles thereof. The college recently assumed the right of examining for its license persons who had not previously graduated in a British University, although its

power to confer degrees has been disputed, this function being regarded as the exclusive prerogative of the Universities. It is now wishful to forego the *examination of graduates*, under certain conditions, but, as an equivalent, seems anxious that all physicians practising in England should hold its *license*.

The college is in favour of a uniform education for Doctors of Medicine graduating in each division of the kingdom, and, with this view, suggests the appointment of a controlling body, to which the bye-laws of the different Colleges of Physicians should be submitted for revision. But if, under such a body, the regulations for granting *degrees* can be assimilated, it may be a question whether the graduates of any university should be compelled to take the *license* of a college of Physicians, or whether they should not, on verifying their degrees, have a *right* of admission into the college of their division of the kingdom, with the privilege, on change of residence, to enter *ad eundem* into the college of another division.

The legislature, before extending the jurisdiction of the College of Physicians, will perhaps inquire what it has done—whether it has promoted the public welfare, fostered merit, encouraged science, or protected the medical profession; to none of which queries can a satisfactory answer be given. The council cherishes no vindictive feeling towards the college. On the contrary, it desires to see it remodelled, believing that a reformed college may occupy a most useful position under a new scheme of medical polity.

The College of Surgeons, faulty though the constitution of its council is, has yet made no declaration of any proposed amendments.

The Society of Apothecaries has published a manifesto, setting forth the changes to which they are favourable.

But the council repeats its advice to the association, not to abate its exertions, but to press onward in the cause of Medical Reform, and to urge the representatives of the North of England to give their parliamentary assistance in the work. There are many difficulties, but they are not insurmountable, and should act, not as discouragements, but as inducements to renewed and greater efforts. The progress of the last few months has been surprising, and gives assurance of ultimate success.

Dr. Brown, in moving the adoption and printing of the report, referred to the "golden opinions" which Mr. Carter had won, not only from his brethren in the North, but from the profession in all parts of the kingdom. Dr. B. advised the members of the association to be united—not only amongst themselves, but also with other bodies of a similar character—and success was certain.—(Applause).

Mr. T. M. Greenhow moved the adoption of a petition to the House of Commons, of which the following is the substance:—

"That, in the opinion of your petitioners, the Bill for the better government of the medical profession, now before Parliament, is based on principles which are calculated to confer important benefits on the community.

"Your petitioners, therefore, humbly beg that those principles may receive the sanction of your Honourable House."

Mr. Gregory seconded the motion, and it was at once agreed to.

Mr. Carter brought forward a petition in favour of certain clauses proposed to be introduced into the Poor-law Amendment Bill, to abolish the "tender system" in the appointment of medical officers in unions, and for other improvements in the medical relief of the poor.

Mr. Torbock having seconded the motion, it was adopted.

After the transaction of some private business, the thanks of the meeting to the President were moved by Mr. Dixon of Sunderland, seconded by Dr. Brown, and carried by acclamation.

The Chairman acknowledged the honour; and Dr. Brown then said, that he could not allow the meeting to separate, without paying a similar compliment to their invaluable Secretary. Dr. Headlam said, that he might not, as Chairman, be strictly in order, but still he claimed to second the motion; for sure he was that the association owed its efficiency chiefly to Mr. Carter.—(Applause.) Mr. Carter returned thanks, and observed, that the North of England Association, considered with reference to the extent of its district, could boast of a larger enrolment of medical men than any similar institution in the kingdom.

At 5 o'clock, the members and their friends, to the number of upwards of thirty, sat down to an excellent dinner in the Bridge Hotel.—*Gateshead Observer*.

MEDICAL ASSOCIATION OF IRELAND.

PROCEEDINGS OF COUNCIL.

Thursday, April 15.—Council met.

Resolved—That petitions be presented to both Houses of Parliament, praying that such alteration may be made in the law as may render the medical charities of Ireland efficient, and regulate their administration, and that they shall not be subjected to the control or government of the poor-law commissioners; and also, that such amendments may be made in the vaccination act as will enable grand jurors to remunerate medical practitioners for the performance of that duty by annual salary, and not by a small sum for each case.

That petitions be also presented, praying that measures, proposed for the improvement of the medical profession, should be favourably entertained; and that provision should be made for the payment of medical witnesses.

That these petitions be entrusted, for presentation, to Lord Lansdowne and the Attorney-General; and that a circular be addressed to the members of the association, in the country, requesting them to cause the adoption of similar petitions.—*Dublin Medical Press*.

ACADEMY OF MEDICINE.

Paris, April 20.

DIVISION OF THE URETHRA; TWISTED SUTURE; ARTIFICIAL OPENING IN THE PERINEUM; CURE.

By M. RICORD.

A MAN, 30 years of age, consulted M. Ricord for complete division of the urethra, extending nearly half an inch from the meatus; the patient

laboured at the same time under gonorrhœa. The root of the penis was capable of complete erection, but not the glans. The action of copaiva and cubeb in this case demonstrated that these remedies cure gonorrhœa by modifying the urine, and not by acting as revulsives on the intestinal canal; for in this and other similar cases seen by M. Ricord, it happened that the portion of the urethra over which the urine passed, would be freed from disease under the influence of the medicines, whilst the glandular portion of the urethra was still affected.

As soon as the gonorrhœa was cured, M. Ricord undertook the cure of the hypospadias, but being convinced that no chance of cure existed as long as the urine continued to pass (even in a catheter) along the glandular part of the urethra, he resolved on making an opening into the membranous part of the canal, and drawing off the urine through it during the period of cure. This was accordingly done, and the edges of the urethral fissures having been pared off, they were brought together by alternate points of twisted and interrupted suture. Yet, in spite of every precaution, the urine, instead of flowing through the artificial opening in the perineum as was intended, flowed up to the glans, and all the labour was lost. M. Ricord also observed that the points of interrupted suture allowed the edges of the fissure to turn inwards. It required six weeks' attention before the whole of the urine could be made to flow through the instrument in the perineum. M. Ricord now brought the sides of the fissure again together by the twisted suture; the wound soon healed by the first intention, and when the union seemed sufficiently solid the instrument was withdrawn from the perineum, and a catheter passed through the meatus. The urine now flowed along its natural passage, and the perineal fistula gradually closed up, but in a few days the angles of the urethral wound opened, and gave exit to a little pus. One, however, is now completely closed; the other still discharges slightly. Before the operation, the semen escaped with the urine through the fissure; it now passes up to the end of the penis without being ejaculated, but as erection of the organ is complete, M. Ricord hopes that the function will soon be restored.

The members of the Academy examined the patient with much interest, and bore testimony to the brilliant results of this operation.—*Gaz. Med. No. XVII.*

CONFERENCE ON MEDICAL REFORM.

At the ninth and tenth meetings no business of importance was transacted.

Eleventh Meeting of the Medical Delegates, Monday, February, 22, 1841.

Present.—Dr. FORBES in the Chair.

Provincial Association, Dr. Forbes, Dr. Cowan, Mr. Wickham.

British, Dr. Webster, Dr. R. D. Thomson, Mr. Evans.

Irish, Mr. Carmichael, Dr. M'Donnell, Dr. Maunsell.

North of England, Mr. Carter.

South Devon, Mr. Smith.

Cornwall, Mr. Pilcher.

Glasgow, Mr. Farr.

The opinions of the conference, as stated to the president and vice-presidents of the Royal College of Surgeons, were read, and discussed *seriatim*.

To Clauses 1 and 2 Dr. Cowan objected: he could not see why a new and distinct faculty of medicine was required. Why should not the present boards, after being opened to their members, and after the election of their councils by those members, be so amalgamated as to form a joint body for the government of the profession. He thought such a scheme was much more feasible than the plan of a new representative system in connexion with a general incorporation of the profession.

Mr. Carmichael expressed his full concurrence in the clauses under discussion, and he believed the principle of a representative medical government was generally acquiesced in. He did not think the amalgamation of the different corporations, as proposed by Dr. Cowan, would operate beneficially: it had been attempted in Dublin, but had failed; the College of Physicians of that capital had refused to coalesce with the College of Surgeons.

Dr. Maunsell had no objection to the proposition of an incorporated profession in the abstract; his concurrence in any particular plan of carrying it into effect would depend on the details and probable working of such plan.

Dr. M'Donnell assented to the principle in question.

Clauses 3, 4, 5, 6, 7, and 8, were agreed to.

Clause 9, relating to the interdiction of unlicensed practitioners, gave rise to an animated discussion.

Dr. Maunsell objected to any coercive measures for the suppression of illegal practice; he thought that such would not be listened to by Parliament; and, indeed, that so long as medicine was an imperfect science, and many diseases were incurable, he was of opinion that it would be a most outrageous interference with the liberty of the subject, to prevent persons availing themselves of any advice they might please to take, if by taking it they could procure alleviation either of bodily suffering or of mental inquietude.

Dr. Webster thought that legislation in this matter was not so much required to prevent the more open kinds of quackery as the administration of patent medicines, but to protect the legal practitioner from the usurpation of his privileges by unqualified persons assuming the right to prescribe for diseases on principles which it was impossible they could have proper opportunities of understanding; he considered that if chemists and druggists were still to be allowed to act as medical men, any new legislative amendments would be of little use. The Master of the Apothecaries' Company had expressed a similar opinion in common with himself a few days ago.

Mr. Carter said the meeting was discussing an opinion, not the propriety of what should, or what should not, be sought for by an Act of Parliament. He thought all must agree in thinking, that the treatment of diseases should be undertaken by none but qualified men. There would be no inconsistency in adopting the opinion that no unqualified person should practise the healing art, and at the

same time declaring that, in the present state of the public mind, it would not be prudent to seek for a sudden and peremptory abolition of quackery by an Act of Parliament. He could not, however, see why an attempt should not be made to put down illegal practice by the strength of the law; if people were to be licensed to drive steam carriages, was there anything tyrannical in requiring that they should be licensed to treat diseases and injuries? He thought that a paternal government might take means for protecting the public against the imposture and knavery of unauthorised pretenders. It was consistent with the spirit of English law that such protection should be provided, and he could not think that a sufficiently high standard of qualification could be generally established, if protection were not given to those who should reach that standard. The Eastern Medical Association of Scotland had made some admirable remarks upon the subject. It disapproved of prosecutions as they were now conducted, but thought the treatment of unlicensed persons should be by a summary conviction before a magistrate, whereby the public sympathy would not be roused in behalf of those who were brought to punishment.

Dr. Cowan was favourable to stringent measures for suppressing illegal practitioners.

Mr. Carmichael saw no objection to the legal cognisance of unauthorised practice, if the onus of punishing it were to rest with the government, and if the process were to be of a summary and inexpensive kind.

Dr. Maunsell asked for a definition of the phrase, practice of medicine; he could not see where the line was to be drawn which was to limit the practice of medicine.

Mr. Carmichael defined the practitioner of medicine to be one who receives money for medical advice. A man might recommend a certain appliance or nostrum, but he could not be said to practise medicine unless his recommendation were made a source of profit or gain.

This opinion was acquiesced in by all the delegates; Dr. M'Donnell and Dr. Maunsell objecting to the introduction of a stringent clause against quackery into an Act of Parliament.

Dr. M'Donnell thought the representations of a national council of medicine might hereafter lead to some amendment with respect to illegal practice; in the mean time it should be discountenanced by the legislature in every possible way; its suppression he thought beyond the power of the law.

Clause 9. Dr. Cowan thought the opinions herein expressed could not be carried out; the present medical bodies would be wholly opposed to being left with the limited power it would assign to them.

A long discussion ensued upon this point. Mr. Carmichael thought the hostility of existing institutions might, in some degree, be obviated by giving them a share in the appointment of the councils, and by securing to them funds for their necessary outlay.

Dr. Forbes observed that such a scheme had been discussed, and would not be opposed, if insisted on by the corporations.

Dr. Webster suggested that the national faculty might take charge of the museums and libraries of the present colleges. The latter might be con-

verted into scientific bodies; or form, conjointly, an Academy of Medicine.

Mr. Carmichael was not by any means assured that licentiates of the new faculty would go to the colleges for additional diplomas.

Mr. Carter said, that under any plan which might be adopted for examining candidates' licences, the universities and colleges would still receive pecuniary emolument from the granting of degrees and honorary titles; but he could not disguise the circumstance, that the establishment of a new examining board for licentiates would materially affect the revenues of existing boards. It would be in the construction of the examining boards that the present corporate bodies would be mainly interfered with. The opinions of the conference stated that one board should be formed in each capital, but they purposely avoided stating how the boards were to be formed: they had left it open to the corporations to propose some plan whereby they might not be shut out from all share in the matter; and he thought it should be clearly understood that the new council and boards should not be the means of impoverishing the colleges, so as to render them unable to meet the expenses of those parts of their establishments which were useful to the public and the profession.

Mr. Carmichael thought the profession would never be properly respected until medicine and pharmacy were separated. He thought it was degrading to the English practitioner that he should have any connexion with a company of trading druggists: such an union was not to be found in any other country in the world.

Dr. Webster thought it was disgraceful that the Apothecaries' Company should have any control over medical practice.

Mr. Wickham thought that nobody had a good word for the apothecaries. They had, perhaps, done their best; but it was not proper that they should have been entrusted with their present extensive powers.

Mr. Farr thought the delegates should proceed with those plans which they might wish to see embodied in a bill. They should uphold what was right in principle, and should not, from expediency and fear of opposition, shape their conduct with view to please this or that medical corporation.

Dr. Forbes said that he should not, after that evening, be able to continue his attendance at the meetings of the conference; but he would, in retiring, express his wish that other gentlemen might be animated by the example of Mr. Carmichael, and contribute funds in aid of the cause of reform. He thought the members of the Provincial Association might subscribe for this purpose.

Dr. Maunsell then proposed that a letter should be addressed to the central council of the association, suggesting that the expenses of their delegates should be paid from the funds of the general body, and that a salaried agent should be employed in London to attend to the questions of medical reform and parochial medical relief.

Such a letter was accordingly written, and was signed by Mr. Carmichael, Dr. Forbes, Dr. M'Donnell, Dr. Maunsell, Dr. Webster, Dr. Cowan, Mr. Farr, Mr. Wickham, and Mr. Carter.

The meeting was adjourned.

*Twelfth Meeting of the Delegates, Thursday,
February 25, 1841.*

Present,—Dr. Sharpey in the chair.
Provincial Association, Dr. Cowan, Mr. Ceely.
British, Dr. Webster, Dr. Grant, Mr. Davidson,
Dr. R. D. Thomson, Mr. Evans.
North of England, Mr. C. T. Carter.
South Devon, Mr. Smith.
Irish, Dr. M'Donnell, Dr. Maunsell.
Glasgow, Mr. Farr.
East of Scotland, Dr. Sharpey.

A letter from Dr. Hastings, containing certain resolutions of the central council of the Provincial Association, was read.

CONFERENCE WITH THE COLLEGE OF
PHYSICIANS.

The delegates, with the exception of Mr. Davidson, then proceeded to the College of Physicians, when they were received by the president, Sir H. Halford, Bart.; the censors, Dr. J. Bright, Dr. Babington, Dr. R. B. Todd, and Dr. George Burrows; and the registrar, Dr. Francis Hawkins.

Dr. Sharpey, on behalf of the delegates, said, that they were anxious to procure for the public and themselves an amendment in the laws relating to that profession, and he hoped that some understanding might be arrived at, which should unite the corporate bodies and the medical associations in procuring the accomplishment of the requisite changes.

The President said he could not speak for the college, since many of the changes which were deemed advisable by it were still under consideration; but he should be happy to hear the opinions of the conference on the question of medical reform.

The Secretary of the delegates then read the latter document.

The President then read the statement lately published by the College of Physicians on the proposed amendments in that establishment.

Mr. Smith inquired if the contemplated changes had reference to the profession at large, or only to the College of Physicians.

Dr. Burrows: Only to physicians.

Dr. Grant observed, that the obligation imposed on graduates of universities, in other parts of Great Britain, to undergo a second examination before this college, before being allowed to practise in London, was a very great cause of complaint. It would be considered a hardship if fellows of this college were unable to practise in Scotland without being re-examined by one of the Scottish universities.

The President said that no such instance had ever come under his notice. He had been president of that college twenty-one years, and had never heard of any complaint under the head now stated. He thought it very desirable there should be some uniform plan adopted with respect to education by the various universities; but he must say he was opposed to the plan of the faculty, as recommended by Mr. Hawes and Mr. Wakley. Mr. Hawes would level all distinctions, and recognise but one class of practitioners. The fulfilment of his views would greatly interfere with the powers which had been exercised, and, he hoped,

usefully exercised, by the College of Physicians, for more than 250 years.

Dr. Webster said, that no greater mistake could be committed than to suppose that medical reformers were attempting to put an end to the distinctions of consulting physicians and consulting surgeons: such distinctions would always continue; but some new regulations were required on behalf of the general practitioner; and he must say that a serious mistake had been committed by this college twenty-five years ago, in giving over to a trading company the examining and licensing of this class of the profession. He considered it a degradation that any medical man should have to succumb to a body like the Society of Apothecaries. The profession at large was agreed upon the impropriety of the present arrangements; and he called upon the college to rescue the general practitioner from the dominion of the Apothecaries' Company. The powers possessed by that company were an insult to the Colleges of Physicians and Surgeons. The learned president himself could not (if it were necessary to do it) prepare a dose of medicine of his own prescribing, without rendering himself liable to punishment by the Company of Apothecaries. The system must be redressed; and he could tell the College of Physicians that the profession was bent upon having some control over its own affairs: they claimed the privilege of self-government. He begged to know if all doctors of medicine were to be admitted as members of the college who held a British diploma, and had reached the age of twenty-six years.

Dr. Todd said, all who did not practise pharmacy would be admitted, if the recommendations of the college were carried into effect.

Dr. Webster said, he thought he had known instances of members of the college compounding their own prescriptions.

The President said, they could not admit persons into the college who prepared their own medicines. They were decidedly hostile to any connexion between prescribing and dispensing.

Mr. Farr wished to know how far the college were willing to go along with medical reforms, in seeking an amended state of medical government.

The President said, they could not favour the establishment of a faculty. They were very desirous to consult the public welfare by making any reform in their own college,

CURIOSITIES OF MEDICAL LITERATURE.

THE QUACK'S CORNER.

THERE is a certain corner of the "Times" newspaper, in which are usually congregated, as it were instinctively, a series of dubious advertisements relative to medical affairs. The following example is extracted from the "Times" of Tuesday last.

1. The Sixth Edition, price 1s. On the Cure of Squinting, &c. By Charles W. C. Guthrie, jun.
2. Contributions to Aural Surgery. By James Yearaley, M.R.C.S. &c.
3. Deafness successfully treated. By ditto.

4. Improved Method of treating Deafness, with Diagrams. By James Yearsley, M.R.C.S. &c.
 5. Outline of Diseases of the Ear. By ditto.
 6. Stammering and other Imperfections of Speech relieved by Surgical Operation, &c. By ditto.

7. Just ready, by ditto. On Excision of the Tonsils and Uvula, &c.

8. On Throat-Deafness, &c., the result of long and successful experience. By John Stevenson, Esq., Aurist and Oculist to various Royal personages.

9. On Indigestion, Costiveness, Torpid Liver, and the Remarkable Cures effected by M. la Beaume, Medical Galvanist.

10. Marriage, its Intent, Obligations, &c. By an unknown Author.

11. Manhood; the Causes of its premature Decline, &c. By Messrs. Curtis and Co.

12. Practical Observations on the Pathology and Treatment of Stricture of the Urethra, &c. By Robert Wade, &c.

13. A Practical Treatise, &c. By Francis Burdett Courtenay, Esq. &c.

What a select collection have we here, from Charles Guthrie, jun. Esq. to Francis Burdett Courtenay!!!

HOUSE OF COMMONS.

MEDICAL INTELLIGENCE.

Friday, April 23.

Sir C. Coote presented a petition from the King's County against the Medical Profession Bill.

Lord Morpeth presented four petitions from the College of Surgeons, Ireland. The first prayed that the medical institutions of Ireland may not be placed under the control of the Poor Law Commissioners. The second, that the Vaccination Bill be amended, and that the medical men be paid by salaries, and not by a fixed sum for each case. The third, in favour of Medical Reform. And the fourth, that medical witnesses in coroners' courts should be properly remunerated.

April 26.

In the House of Lords, the Earl of Falmouth presented a petition from a medical association, praying that the three branches of the medical profession should be combined in one faculty.

In reference to the Metropolis Improvements' Bill, the Bishop of London observed that some general measure ought to be introduced into parliament, to prevent the burial of the dead in large crowded cities. He should like to see a number of small cemeteries established in the neighbourhood of London, consecrated by the Bishop, where the poor might be decently interred at a small expense.

Lord Normanby said, if the right reverend prelate would undertake to introduce a bill into parliament, embodying his views on the subject, he (Lord N.) would give it his most cordial support.

April 27.

Mr. Maclean wished to know whether the government had received any report from the special committee appointed to inquire into the operation of the Anatomy Act.

Mr. F. Maule said that he had not received the report, although he had frequently applied for it.

Mr. Maclean said that, on this day week, he should move for certain returns relative to the operation of the act, unless the report should previously be laid on the table of the house.

A CHILD SUCKLED BY ITS GRANDMOTHER.

Madame Angelie Chauffaille, sixty-two years of age, living at Queysoix, had undertaken the duty of spoon-feeding her grand-daughter, when, to amuse the latter, she bethought herself of pressing to her, occasionally, the nipple. The old lady was, one day, amazed to find that her breasts became tumid, and furnished a quantity of milk, which appeared to be of excellent quality. She immediately gave up the artificial food, and continued to nurse her grandchild for a year. She had not given birth to a child for twenty-seven years. It may be remarked that the mother of Madame C. had twelve children, all of whom lived to be more than sixty-three years of age, and her last child was born when she herself was sixty-three years old.—*Gaz. Med.* No. XVI.

IRON IN BREAD.

An excellent method of administering iron is to give it, made up with bread; the qualities of the latter are not, in the least degree, altered by the medicine. From 2 to 5 grains of the lactate of iron may be mixed with every 125 scruples of the dough. In baking the remedy is not at all altered.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on April 23, 1841.—William Stevens Butler, Edward Harley, Frederic Henry Secutan, Henry Ellis, Thomas Austin Robinson, William Augustus Hillman, George Bird, John Royston, Maxwell Jennyns, George Thomas Gauntlett, William Batley.

Admitted April 26.—Lewis Rudge, Joseph Savory Tyler, Egerton James Pratt, Thomas Spencer Wells, William Pritchitt Hodgson, Robert Sawle Downall, Samuel Parker, Richard Prior, Isaac John Gillam, James Lewis Winchester, Thomas Edward Vernon, John Lodge.

Printed by THOMAS INCHON, of 105, St. Martin's Lane in the Parish of St. Martin in the Fields, and GEORGE JOSEPH PALMER, of 20, Regent Square, in the Parish of St. Pancras at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUSSELL, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, April 27, 1841.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

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LONDON, SATURDAY, MAY 8, 1841.

PRICE SIXPENCE.
[STAMPED EDITION SEVENPENCE.]

COURSE
OF
LECTURES ON PHYSIOLOGY AND
SURGERY,
DELIVERED AT ST. GEORGE'S HOSPITAL,
BY JOHN HUNTER, F.R.S.
(From the Manuscript of Mr. Henry Rumsey.)
LECTURE II.

OF DISPOSITIONS OF THE BODY.

GENTLEMEN,—It may be difficult to define a disposition of the body, but that the body has dispositions is undeniable; and without knowing this, and therefore coming at, or endeavouring to come at, the knowledge of these dispositions of the body, a man must be a very confined surgeon in his practice. But a disposition is more commonly applied to the mind than body. In the mind it is more easily comprehended, because the mind has powers of investigating its own feelings or dispositions, also the power of communicating them by means of the body to the minds of others, so as to be understood or felt by those minds.

Every man has felt, perhaps, every disposition that can arise in the human mind, therefore is perfectly sensible of these dispositions when communicated to others.

But in the present inquiry the mind has no intelligence of the feelings or dispositions of the body, is obliged to compare the effects of the two with one another, and when they are similar, to suppose that the causes are also the same.

A disposition either in the mind or body, when in health, always arises from some impression. But as both mind and body are capable of seeming spontaneous actions, these may arise and form diseased dispositions in both, producing madness in one, and strong disease in the other.

As disposition can arise in consequence of some impression, it is capable of being destroyed by a counter-impression, which in disease is the method of cure that will be called specific. Many dispositions wear themselves out, or are such as the body or part cannot go on with.

A disposition is different from a visible action, yet it is possible it may be in itself an action. If we compare the actions of the body with those in consequence of the mind, which is comparing from analogy, and perhaps the only mode we have, we shall probably form a pretty good idea of it.

A disposition of the mind certainly arises either from some action of the brain, or a certain position of the parts of the brain takes place, giving them an inclination to produce action. But the action or the position which produces the inclination to action, we know nothing of; it is only a sensation of the mind, or rather a consciousness of the mind of such inclination, which sensation or consciousness is different from the sensation of the brain, arising from other actions of this

viscus; and also knowing that such action of the brain as produces such sensation in the mind, is endeavouring to set other parts of the body into action, which may be called voluntary, or rather actions in voluntary parts, and that when such actions have taken place in those parts, such dispositions of the brain are lost;—I say, knowing so much, we may from analogy form some idea of bodily dispositions. But in the body there appears to be this difference from that of the brain, for in the brain there is only the disposition, and the ultimate or consequent action appears to be in the body. But this arises from our not being much acquainted with the immediate effects of the disposition in the brain, but led away with the ultimate visible effect, for the ultimate and visible action is in the body.

To explain this, suppose I have an impression made on my body in such a manner that my sensitive principle is sensible of it; if a man gives me a knock on my head, that makes me angry, I form a disposition from that for resentment, i.e. that disposition in my mind produces an action in my brain, which forms a peculiar state of mind, which is anger. If it was an action of some other kind, it might be affection or gratitude. The brain can do nothing by way of retaliation, whether gratitude or revenge, but to set parts of the body to work. Having received a blow on my head, the disposition in my brain for revenge, or to produce the action of revenge, sets my hands to work to give my enemy another blow, and then the disposition is gone. So that whenever the action has taken place, the disposition is gone.

The ultimate effect is made sensible to us, and we are apt to suppose that it is the immediate act of the disposition of the brain. The action of the brain so disposed made only parts of the body act, which may be called secondary actions; from which it appears that there are three actions necessary for the ultimate effect, but still these three are not three actions of the brain, there are only two, viz. the action of disposition, or that action which produces the disposition or inclination, which is the first; the action of the nerves, in consequence of the disposition, the second; and the action of the voluntary muscles in consequence of the last action on the nerves, the third; but only the two first actions belong to the brain.

Let us see how far this disposition and consequent action of the brain correspond with the dispositions of the body and action of the body arising from these dispositions.

If on any part of an animal an impression is made, a disposition is formed suitable to that impression, which is the first; and an action in the same part suitable to that disposition may take place, which is the second, and which is the ultimate. If a sympathetic action takes place, it becomes somewhat similar to the ultimate effect arising from that disposition in the brain.

We may with great propriety compare the dispo-

sition or action of either the brain or body with the disposition or action of an elastic body. An elastic body, when acted on, (which is similar to impressions made on our own body,) acquires a disposition or inclination; and if allowed, that disposition will produce actions in all the parts of the elastic body, which destroy the disposition. The disposition to action, and the action, are two very different things in themselves, even in the elastic body. When the elastic body has performed its action, it appears to be at rest till acted upon again; but it always requires action to destroy disposition.

We must make a material distinction between a disposition and an action in diseases; for what will cure an action, will have no effect on a disposition.

Every machine is composed of very different parts, yet all tend to some ultimate effect. Every machine, whether natural, as an animal body, or constructed by art, however simple it may be, yet is always composed of more parts than one. And it is to be observed, that no two parts have the same action, although all are tending, even in the most complicated, to produce some ultimate effect. For instance, some machines of art are intended for the division of time, as a clock, which is so simple, as to perform that effect by one wheel, which is expressed by an index; or again, which is much more complicated, yet all the parts employed immediately to some ultimate effect, viz. to the regular movement of this index, which expresses the ultimate effect, all of which may be called but one organ; or again, so constructed, as to divide time in different modes, viz. into seconds, minutes, and hours, as also striking or producing a number of sounds expressive of the times, and those sounds expressing the times, dividing it into quarters, half hours, or hours, all of which are so many parts superadded, yet all move by the first principle of motion, and all are connected with each other. These different movements might be called so many organs.

So it is with machines in nature; some animals are so simple, as to have apparently but one operation, and that is support, and which may be called one organ. Other animals are so complicated as to be composed of different parts, whose actions and effect appear ultimately complete in themselves, as the action of a kidney, liver, &c.; although each appears to perform a complete operation in itself, yet all combine to produce an ultimate effect in the machine, viz. the preservation and continuance of the species.

To produce the ultimate effect in any machine, however simple, there must be a succession of action, one naturally rising out of the other, or from each part taking on an action peculiar to itself, the preceding action always being a stimulus to the second succeeding one. So that parts go on in regular succession till the ultimate effect is produced, and then the whole is at rest. ~~an~~ ~~stimulus~~ ~~into~~ ~~action~~ ~~again~~, which in ~~some~~ ~~parts~~ ~~is~~ ~~almost~~ ~~immediate~~, as, in the heart, organs of ~~respiration~~; so that when the heart has thrown ~~on~~ ~~as~~ ~~blood~~, it has done its business, but it must ~~reappear~~ ~~again~~, and immediately. When we inspire ~~and~~ ~~rapid~~ ~~respiration~~ has done its business, but ~~there~~ ~~is~~ ~~a~~ ~~necessity~~ ~~for~~ ~~a~~ ~~recurrence~~ ~~of~~ ~~the~~ ~~operation~~ ~~again~~, and so immediate, that it seems almost ~~continuous~~, but in others there is a greater distance

of time, although the action is renewed, as in hunger, evacuation of the fæces, urine, &c.

An animal body so constructed as above described gives us the idea of perfection; for as each part has its particular appointment, one should naturally expect equality, or powers suitable to these appointments, would take place through the whole. But this certainly is not the case, at least in the more perfect or complicated animals, whatever may be done in the more imperfect or simple. For in the more perfect, when life depends for support on the action of some one part, viz. the heart; as also when many actions of the animal depend on the powers of another part, viz. all the voluntary actions depending on the brain, and not only the simple voluntary actions of the body depending on this viscus, but the real strength of those parts depending on the power of the brain, for whenever the power of the brain is taken off, they waste. This wasting does not arise from the brain supplying those parts with nourishment; and from its now being cut off, the parts lose their future support; but it arises from the want of necessity to keep up those parts fit for action, when the action can take place, because the will cannot now stimulate them to action. The same thing takes place in a proportionate degree when a joint is simply rendered either wholly or in part unfit for motion, when no injury has been done to the power. Thence it must appear that as the power of support being in one part of the whole machine, and the power of many actions being also in one part of the machine, that it is possible that all parts of the body be not equally served by the first, viz. the heart, and that all parts are not equally influenced by the second, viz. the brain. And we find that the more distant parts from these sources of powers are weakest. This perhaps is better illustrated by disease than in any action in health. We may just observe, that all the vital parts are near the one, and all the acute sensations near the other. In disease we see a mortification arising from debility taking place in the extremities, more than in the other parts, and more especially if the person is tall, so that the heart is not capable of propelling the support of life to those distant parts in such a state of constitution.

How far the blood may lose its power of nourishment before it reaches the extremities, I will not say. If our acute sensations are near to the brain, it is reasonable to suppose that proximity of parts adds to the power of the nerves in communicating sensation; if so, it is reasonable to suppose that proximity of parts will also add to the powers that the brain has on the actions of voluntary parts by means of nerves.

MEMORY OF PARTS ENDUED WITH THE LIVING PRINCIPLE.

Memory, or recollection of past impressions, has, I believe, principally been applied to, or supposed to be an attribute of, the mind only; but we know that every part endued with life is susceptible of impressions, and also that they are capable of running into the same action without the immediate impressions being repeated. Habits arise from this principle of repetition of, or becoming accustomed to, any impression, and the same thing exactly takes place in the mind. The

memory of the body is of much shorter duration than that of the mind. The mind not only goes more readily into action the second time of an impression, though a considerable distance of time has taken place since it went into the same action before, but seems to take up the action with more ease, from merely collateral causes, from a recollection of the similarity, or often without any possible recollection whatever, as if the actions, in consequence of the former impression, were taking place in the brain again. This does not appear to be so much the case with the memory of the body, for this only arises from immediate impression, but goes into action a second time more readily than at first. Possibly, however, the action arising from the first impression may be repeated from some collateral or similar impression to the first; if so, it comes very near to that of the mind, though not so strong.

A gentleman rubbed in mercurial ointment for the reduction of two buboes; he had only used it a few times when it affected his constitution so much, that he was obliged to leave it off: he became feverish, the fever being of the hectic kind, with a small quick pulse, debility, loss of appetite, no sleep, and night sweats. He took the bark, with James's powder. As the effects of the mercury went off, and his buboes were advancing, it was necessary to have recourse to mercury again: he now rubbed in a considerable quantity without its having the least effect on his constitution or mouth; but the buboes spreading, made me order it to be left off again, and they were opened. He had recourse to the ointment the third time, without its producing any disagreeable effect. The buboes took on a healing disposition, but then became stationary. I ordered him to leave off the ointment, to go to the sea, and bathe, and then they began again to heal. In about three weeks it was thought necessary to rub in again: when he began, it almost immediately affected his mouth very violently; he left it off till his mouth was a little better, when he began for the fifth time, and it had not so much effect, and he was able to pursue the mercury. Now in this case he had lost the mercurial habit during the time he was at the sea, the parts had forgotten the mercury altogether, and the mercury coming on such a state of constitution, produced the same effect as it would have done if he had not taken mercury. So that the body had, as it were, lost the remembrance of the effect of the mercury on it in so short a time; but the mind would not have lost it.

CUSTOM AND HABIT.

Custom is with me the negative of habit: by custom comes an insensibility to impression, the impression diminishing although the cause is the same, and the parts becoming more and more at rest; whereas from habit there comes an increased facility to go into action, as also an acquired perfection in the action itself, the impression continuing the same though the cause is diminishing.

These may be reckoned as secondary principles in an animal, and produce two very opposite effects, both according to their modes of impression.

Habit is the continuance of actions we have been accustomed to produce, without any immediate assistance, or even continuance, of the first

cause, as a body set in motion continues to move after the cause of motion has ceased to act.

Custom arises from external impressions, either in the mind or body, and is of two kinds, one when, the cause continuing, the impressions, and consequently the actions, are diminished, the parts becoming habituated to the impression. We shall see the effect of this in our applications. If we apply a medicine to a sore, which shall affect it in one way or another, (it is immaterial which for the principle, but we will suppose it heals,) from becoming accustomed to that application, it shall lose the impression, and shall at last do nothing; therefore you will be obliged to make the application more stimulating, more active, or change it for something else. It is exactly so with the mind; if a man goes into a strange place, he is affected by the new objects about it; the next time he goes, he is less struck; the third time less, till at last, when he goes into the place he can hardly perceive anything strange in it. These very different effects arise from a difference in the degree of impression resulting from the state of the mind or body at the time. In the first instance, if the impression or cause be very slight, so as hardly either to alarm the part or the constitution, they will get familiar with it, and will become insensible to it; a ring on the finger, the use of snuff, our very clothes, and physic itself, are striking and daily instances of this. The habit of insensibility will soon be formed, if the sensations of the mind and body be not very acute. If the first impression be violent, and such as produces considerable effect, it is not necessary that the same degree of violence should be inflicted to produce a similar effect a second time. One can easily imagine that these impressions may be continued until the parts continue to act without the impression, which would then become habit. If a dose of an emetic be given, which affects the stomach much, the same quantity is not necessary a second time to produce the same effect; the second must be given, however, before the stomach has lost the impression of the first perfectly.

The same effect is produced on the mind as on the body, for whatever has made but a slight impression, soon wears out, and we think no more upon it. On the other hand, if an animal has met with anything that has affected its mind much, as fear, &c., it is not necessary for the object to appear in the same manner to produce a similar effect.

Those effects will be more or less, according to the state of the body or mind at the time of the first affection; the more irritable or the more ready it is to fall into the first action at the time, the more readily will it take it up the second time, although it may not be particularly irritable or susceptible of this particular action.

A habit of acting arises from a repetition of acting, which repetition of acting is custom, and which becomes the cause of the continuance of the same action. So that custom is always prior to habit, or, as it were, forms habit, which may be ranked as one of the secondary principles in the machine.

The first action being produced by a disposition in, or force upon, the part, this being repeated or continued a sufficient length of time, the action at length goes on, when that original disposition or force is gone, until some other power counteracts

it, or it wears itself out. The more we have been in the habit of thinking on any object, the more readily does the train of thinking relating to that object recur. This principle in the animal is similar to the vis inertie in matter, for by it a motion begun is continued, and their remaining at rest is from the same cause. This principle becomes the cause of the actions of the mind; it does not allow men to think differently from what they have been accustomed to think. Men in general go through life with the same modes of thinking, and thus it becomes a cause either of the retardation or improvement of the understanding. It retards improvement, because it gets the better of even present sensations, and does not allow men to wander into novelty. It promotes improvement, because it makes men perfect in what they have been long employed about.

COURSE OF CLINICAL LECTURES

ON

SURGICAL DISEASES.

DELIVERED AT THE HOSPITAL OF LA CHARITÉ,
BY PROFESSOR VELPEAU.

LECTURE IV.

ON DISORDERS OCCASIONED BY THE DEVELOPEMENT OF THE DENS SAPIENTIE.

GENTLEMEN,—As we have now in hospital an example of the disorders which are occasionally produced by irregular developement of the wise tooth, I shall avail myself of the opportunity to direct your attention to a subject, which has, hitherto, been too much neglected by medical men.

The patient to whom I allude is a strong, healthy young man; for the last few weeks he has complained of severe pain in the right side of the face and mouth, attended with so much swelling of the parts, that he is unable to open his mouth; the submaxillary glands are also considerably tumefied and painful. As it was impossible to ascertain the condition of the interior of the mouth, I endeavoured to subdue the inflammatory symptoms, by applying leeches near the angle of the jaw, poultices, &c.

As soon as I could depress the lower jaw a little, I passed a small wooden wedge between the molar teeth, and, by gradually increasing its size, was enabled to obtain a view of the interior of the mouth. The cause of the disease was at once manifest. Behind the fourth inferior molar tooth there was a large fungous ulcer, covered with vegetations, in the midst of which we could distinguish, by means of the probe, a hard body, probably the dens sapientie. I divided the fungous growth freely with a bistoury, and completely exposed the tooth. On the following day the pain had entirely disappeared; the tumefaction gradually subsided: alum gargles were now used, and in a very short time the patient was completely cured.

The disorders occasioned, gentlemen, by the developement of the wise tooth, were but little known before the interesting memoir of M. Toirac, on this subject, was published; they may occur in connexion with the superior or inferior tooth, but

they usually accompany irregular developement of the inferior one, and are then more severe and better marked.

The wise tooth should appear between the ages of eighteen and twenty-five years; but it often comes forth later, and in some cases at a very advanced period of life. M. Toirac saw the skull of a woman, who died at the age of 103; all the alveolar cavities were obliterated, but on one side of the lower jaw there was a wise tooth which was on the point of appearing. The idea of a third dentition has arisen, no doubt, from facts of this kind. The developement of the lower wise tooth may occasion certain disorders, when there is not sufficient space for it between the last molar and base of the coronoid process; or when, with sufficient space, the direction of the tooth is vicious; this latter may occur in several ways; 1st, it may grow obliquely forwards, and press against the neighbouring molar tooth; 2nd, or inwards, impeding the movements of the tongue, and causing excoriation, &c.; 3rd, or outwards, the crown of the tooth being sometimes lodged in the parietes of the cheek; 4th, sometimes it gets locked in the base of the coronoid process; and 5th, it may be covered and impeded by the gum, as was the case of the patient mentioned at the commencement of the lecture.

It were easy to increase the number of irregular directions which the tooth may take; but they may all be reduced to the five species just described; I shall therefore proceed to give you an example of each.

CASE I.—Direction of the dens sapientie from behind forwards; arrest of the tooth by the neighbouring molar; extraction of this latter: cure.

MADAME R.—, a young woman 22 years of age, began to feel, three or four months after marriage, a dull pain about the angle of the lower jaw, on the left side. The pain soon extended to all the teeth on that side, but was distinct from toothache. As the pain continued to increase in intensity during several months, the existence of rheumatism was suspected, and various modes of treatment employed, but without the slightest benefit. Opisthotos, blisters, steaming the part, &c. were tried next, but afforded no relief; a seton was then placed in the back of the neck, and kept open for a month; this also was unavailing. The patient now took sulphate of quinine, Meglin pills, tried acupuncture, and was finally sent to a watering town, after a consultation of physicians had been held on her case. She returned to Paris in the same state of suffering as when she left it, and called upon me; the teeth were carefully examined, but they were all white, well formed, and apparently sound; the gums were, at every point, pale and free from any affection; nothing denoted the approaching eruption of a wise tooth. I resolved, however, on ascertaining the condition of this latter, and divided the gum over it freely; on passing a small probe, I at once discovered that the dens sapientie was directed forwards, and arrested in its growth by the second molar; I therefore extracted this latter tooth next day, and within a week the lady was completely relieved of the torments which had reduced her to the most miserable condition. I had occasion to mention this case to M. Esquirol, and he informed me that a lady who had been brought to his institution labouring under mental

derangement, was restored to reason by a crucial division of the gum, which liberated the wise tooth.

In order to understand the way in which disorders are produced by the *dens sapientie*, you should remember that, when the crown of the tooth appears at the edge of the gum, the root is far from having acquired its maximum degree of development; the point of the fang is still in a pulpy state, and as it gradually grows, the crown advances; in fact, the root of a tooth never descends, as the term might imply, but development takes place from within outwards; hence, should the crown of the tooth encounter any obstacle, the root is necessarily forced inwards during the progress of ossification, and more or less pressure is effected on the nervous and highly sensitive tissues which compose the dental pulp. Upon this principle, gentlemen, you can readily conceive the disorders which may arise when one of the wise teeth becomes locked in the base of the coronoid process, or is arrested in its growth by any obstacle, such as the gum, neighbouring molar tooth, &c.

CASE II.—*Wise tooth projecting inwards, and producing ulceration of the tongue, resembling syphilitic ulcer.*

M. M., an artillery officer, 45 years of age, who had resided in the country since 1815, came to Paris to be treated for an old syphilitic affection, which he conceived to have been imperfectly cured. For several months he had suffered from an ulcer on the left side of the tongue, near its root; great pain was occasioned by the motion of the tongue during mastication. One of the first medical men in Paris ordered a course of mercury for him, but this remedy only aggravated the disease, and in the course of a fortnight the tongue was so swollen as to fill the whole cavity of the mouth. The gums were highly congested; the breath fetid, and the teeth loose. The mercurial treatment was now suspended, and the mouth soon presented the same condition as when M. M. first arrived at Paris.

On examining the tongue with care, I perceived, at its root, a sore which bore considerable resemblance to a venereal ulcer, but as the patient's stomach was rendered sick by every attempt to examine the back of the mouth, our investigations were very imperfect. At length, however, I succeeded in discovering, about half an inch from the orifice of the dental canal, a hard body, completely concealed by a portion of the gum, and below this another hard body, which turned out to be the crown of the wise tooth, directed inwards towards the tongue. An attempt was made to extract the latter, but it broke off, and the fang remained behind; enough, however, had been effected to free the tongue, and in a few days the patient was completely cured.

This case, gentlemen, shows that from want of sufficient and careful examination, which we are, doubtless, to attribute to the irritable state of the patient, he was unnecessarily submitted to a course of mercury, which not only aggravated the disease, but injured his general health.

CASE III.—*Wise tooth projecting outwards, and lodging itself in the parietes of the cheek.*

Adelaide René, twenty-nine years of age, consulted me on the 23d of October, 1834, for a

swelling of the right side of the face, with which she had been affected for several months. On the external surface of the cheek, at a point corresponding to the wise tooth, could be felt a hard and very painful tumor. On introducing the finger into the mouth, the cause of the disease was readily discovered: the wise tooth projected horizontally outwards, and its crown was lodged in the walls of the cheek. The extraction of the tooth would have remedied the complaint at once; but the neighbouring soft parts were too much inflamed, and the tooth itself was so decayed that it must have broken to pieces under the instrument. A small bit of hollowed cork was, therefore, introduced between the tooth and the cheek, and the inflammatory symptoms combated by appropriate means. Within forty-eight hours they were sufficiently subdued to permit the girl to open her mouth, and the tooth was extracted.

Deviations of this kind are very common, but they are seldom carried to the extent seen in the present case; the tooth generally inclines a little outwards, and does not produce any inconvenience until it becomes decayed, when the asperities of the crown excite ulceration in the surrounding parts.

CASE IV.—*Wise tooth arrested in its development by the base of the coronoid process.*

J. Boulanger consulted me on the 18th of October, 1825. The right cheek was swollen in the most extraordinary degree: the tumefaction extended from the eyelids to the clavicle; the face and neck presented the traces of several cicatrices arising from abscesses which had formed at various times. For the last twenty months the patient was unable to open his mouth, and his nourishment consisted in light broths, conveyed through an opening left by the absence of a small upper molar tooth; at about three inches from the angle of the jaw there was a fistulous opening which discharged a great quantity of purulent matter; and another one, lower down in the neck: on passing a probe into the first of these fistulous openings, it penetrated obliquely backwards for about three inches, and was then stopped by a hard body, which I suspected to be the *dens sapientie*. The health of the poor man had suffered very much; he was extremely thin, and complained of frequent colic, attended with diarrhoea; his digestive functions were also much deranged. Every means had been tried, but without success, to open the mouth so as to admit of extracting the tooth; I therefore endeavoured to force the jaw open by gradually introducing between the teeth portions of wood and cork; this had the desired effect, although the process was very tedious; the tooth was extracted, and in five or six days afterwards a sequestrum was discharged, which appeared to belong to the coronoid process; it bore the mark of the crown of the tooth, and thus indicated the obstacle which had opposed the development of the tooth. The second molar was now extracted; eight days afterwards, a second portion of bone was removed, and from this time the tumefaction of the face and neck disappeared so rapidly, that at the end of twenty days the face had resumed its natural size and appearance.

This, gentlemen, is a very striking case; but occasionally we do not find it so easy a matter to disperse the swelling, particularly if it be of long

standing; in such cases we must have recourse to pressure, which has a great effect in removing the tumefaction. Sometimes the disorders occasioned by a wise tooth are still more severe than any that we have as yet described; the following is an example.

CASE V.—M. J., a gentleman about fifty years of age, had suffered excessive torture during the last two years. When I first saw him, the right side of the face was greatly swollen, and disfigured by numerous scars from old abscesses; the neck also was swollen down to the clavicle, and marked in a similar manner; the mouth remained half open and was distorted, the lower teeth not corresponding in range with the upper. The general health of the patient had been considerably affected by his sufferings; for the last four months he laboured under constant diarrhoea; fetid saliva, mixed with pus, flowed continually from his mouth, and his breath had become so horrible, that he was unable to inhabit the same room with his wife and children. He had passed several months in a *maison de Santé*, but without benefit. It was in this state that I first saw him, feeble, emaciated, and unable to walk without the support of two friends. A mass of fungous flesh which occupied the whole of the mouth on the diseased side was freely divided, and, after a long examination, a wise tooth was discovered in the base of the coronoid process. The tooth and whole of the process were removed, as were also several portions of the maxillary bone, with loose teeth, &c. The after-treatment consisted merely in the use of detergent gargles, and it was astonishing to see how rapidly the patient recovered his health and strength. Within a fortnight all bad symptoms had disappeared, and nothing remained but the deviation of the mouth which was finally overcome by means of a bandage.

CASE VI.—*Chronic inflammation of the amygdalæ produced and kept up by irregular growth of the wise tooth.*

Dr. Friard, while pursuing his medical studies, was attacked, in the summer of 1821, with pain in the throat, and in the following November with severe inflammation of the right tonsil. This condition was partly subdued by antiphlogistic measures, but the pain &c. soon returned, and continued, in spite of every means, up to the year 1823. The teeth and gums appeared to be perfectly healthy, and a surgeon was about to extirpate the tonsil, when it was accidentally discovered that the wise tooth on the affected side had not yet made its appearance; the gum was now freely divided, but the portions of divided gum became inflamed, and had to be removed with the knife and caustic. The tooth was thus completely freed, and the obstinate inflammation of the tonsil soon disappeared.

This, gentlemen, is the only effectual treatment whenever the wise tooth is bound down by an indurated portion of gum: you must divide it freely by a deep incision, and it will be right to introduce a small plug of lint between the edges of the wound; the patient may complain of pain, but he must submit, for this is often essential to the success of the operation.

CASE OF RECTO-VAGINAL FISTULA.

By Dr. VALENTINE MOTT.

Miss R., 22 years of age, after having travelled from Philadelphia to New York, became affected with abscess in the recto-vaginal region. The abscess pointed in two places: one orifice soon healed up, but the other, situated in the vagina, became fistulous: during four years, injections, caustics, incisions and excisions, in a word, every kind of treatment was employed, but without success. The patient placed herself under my care in March 1839. At this time the fistula opened into the right side of the vagina, about six lines from its entrance. On passing a probe into the fistula, I found that it led upwards to the cavity of the rectum, about three or four inches above the anus. A quantity of air and faecal matter was occasionally discharged through the opening in the vagina.

It was easy to foresee that the disease should be treated on the same principles as fistula in ano; the cases were analogous, the only difference being, that here the fistula opened into the vagina. However, the ordinary treatment of fistula in ano could not be strictly applied here, for by employing the seton, or dividing the soft parts comprised between the two fistulous openings, we should have destroyed a portion of the perineum, established a large communication between the rectum and vagina, and thus aggravated the disease, instead of curing it.

It therefore became necessary to devise such modifications of the operation for common fistula, as the peculiar nature of this case demanded. Having introduced for several days a large pledget of lint into the fistula, for the purpose of dilating it, and of bringing it into a straight line, I passed a ligature along the fistulous canal (from the vagina) into the rectum, and brought it out through the rectum; it was left in this state for a few days; I then passed the vaginal end of the ligature into the eye of a curved probe, and directed it upwards through the fistulous canal for about an inch and a half. The point of the probe was now turned downwards, and made to strike the perineum, beyond the sphincter ani; I then cut down on the probe, and brought out the end of the ligature. By this means, the ligature, instead of communicating with the rectum at one end, and the vagina at the other, merely embraced (as in cases of common fistula in ano) the inferior portion of the external wall of the rectum, and the soft parts between this latter and the point of incision. Nothing now remained to be done, except to tighten the ligature gradually, in order to destroy the soft parts embraced by it. However, before this was completely accomplished, the vaginal orifice had closed up, and I continued to draw the ligature tighter every day, until the parts embraced by it were reduced to a mere cord, which I cut across with the scissors. In a few days afterwards the artificial opening healed up, and the patient was perfectly cured of her disease. Twelve months have elapsed since the period of her cure, and I have recently heard from her that she has remained in perfect health ever since.—*Gaz. Med. No. 48.*

TABULAR ANALYSIS OF THE SYMPTOMS OBSERVED BY M. LOUIS,

IN 134 CASES OF

THE CONTINUED FEVER OF PARIS,

(Affection Typhoïde.)

By W. H. WALSH, M.D., &c.

TABULAR VIEW OF THE SYMPTOMS IN 134 CASES OF THE "TYPHOID AFFECTION."

(Continued from page 88.)

Symp- toms.	Disease.	Frequency.	Period of origin.	Degree.	Duration.	Seat or character.
CEPHALALGIA.	Fatal typhoid fever.	46 42	42 39 1st day 3 2d to 4th	Most violent in 1 case; occupied the attention very little in the rest.	Disappeared with the development of deli- rium; did not recur when the latter ceased.	Ordinarily sense of weight or ten- sion; almost al- ways continuous.
	Severe typhoid fever.	57 55	55 8 3d to 12th day 47 1st day		Mean and ordinary duration = 9 Extremes 4 and 20.	ditto.
	Mild typhoid fever.	31 30	30 3 5th or 6th day 27 1st	Severe in 1 case only.		
	All other acute diseases fatal.	half the cases.				
	Recovery	293 53				
SOMNOLENCE.	Fatal typhoid fever.	46 41	41 4 1st day 5 3d to 6th 32 later and al- ways (with 1 ex- ception before deli- rium.)	41 Slight at outset in all, trifling in some throughout.	Until death, except in 7 cases, in which it ceased from 4 to 15 days before that event.	As above; disap- pearance gradual, except in 1 case.
	Severe typhoid fever.	57 49	40 1 2d day 2 6th and 8th 1 40th most commonly 9th Mean 14th	40 10 deep 30 moderate	Mean = 8 days. Extremes 1 to 20 days.	
	Mild typhoid fever.	31 19	19 1 5th day. 2 7th and 9th Mean 19th day	Generally very slight.		
	All other acute diseases fatal or not.	Upwards of 500 about 10				
DELIRIUM.	Fatal typhoid fever.	46 38	38 2 3d day 1 4th 2 5th 33 8th to 25th mean 10th day, in subjects dying, from 15th to 20th, 15th in those dying later		38 Mean = 10 days.	

SYMPTOMS OF TYPHOID FEVER.

Symp. toms.	Disease.	Frequency.	Period of origin.	Degree.	Duration.	Seat or character.
DELIRIUM—(continued.)	Severe typhoid fever.	56 39	39 2 1st day 9 4th to 10th 12 11th to 20th 16 20th to 30th		39 7 24 hours. 8 15 and 24 days. 29 mean = 6½ days.	
	Mild typhoid fever.	51 3			1 24 hours. 1 2 days. 1 7 days.	
	Fatal acute diseases.	50 14				
SPASMODIC SYMPTOMS.	Fatal typhoid fever.	46 16				
	Severe typhoid fever.	57 6				
	Other acute diseases.	Upwards of 500 4				
PAIN IN LIMBS.	Typhoid fever fatal and recovery.	184 132		Slight.		Not rheumatismal in character.
ERECTAE.	Fatal typhoid fever.	16 11	12 3 1st day 8 4th to 15th	11 Once in 5 cases, frequently repeated in the others.		
	Severe typhoid fever.	34 27	27 3 1st day 5 4th 4 5th to 10th 5 10th to 15th 6 15th to 20th 4 still later	27 Once in 10 cases, twice or } thrice in } 8 5, 6, 8, } 10, and } 15 d. in } 9		
	Mild typhoid fever.	24 11				
	Pneumonia. Recoveries.	57 8	8 1 1st day 3 2d 4 4th to 11th	8 Once in 3 cases. 3, 4, 6, 8 suc- } cessive days } 5		
TINNITUS AURIS.	Fatal typhoid fever.	30 11	11 4 1st day			Generally unattended with deafness; in several cases of gradually increasing intensity.
	Severe typhoid fever.	45 19	19 3 1st day		19 From 4 to 20 days.	Ditto.
	Mild typhoid fever.	24 6	6 1 1st day rest later			

CASE OF STAMMERING,

IN WHICH PROFESSOR DIEFFENBACH'S OPERATION WAS PERFORMED.

By P. BENNETT LUCAS, Esq.

LECTURER ON SURGERY AT THE HUNTERIAN SCHOOL OF MEDICINE, &c.

April 1, 1841.—THOMAS YOUNG, stat. 21, a labourer at a forge, applied at the Metropolitan Free Hospital four weeks ago, for the purpose of being relieved of stutter. This patient is a tall, stout young man, of a fair complexion, light eyes, and an agreeable expression of countenance: he is intelligent, and is anxious to undergo any operation that would afford a hope of his being cured, or alleviated of his inability to articulate.

He has suffered under the infirmity for which he applies for relief since he can remember.

When he attempts to pronounce any word, he protrudes his tongue, for the distance of at least an inch, between his teeth and lips, withdrawing it again; and these movements he is compelled to perform several times, before he can express the word he desires.

Whether the word commences with a labial or palatine letter, it is the same. His lips are large, and the lower one is rather pendulous; and these, together with the alae nasi, are spasmodically affected when his difficulty to pronounce words is at its severest height.

The presence of strangers does not appear to influence his inability to articulate, and he can sing what he desires to express with comparative fluency; but his capability to express his ideas by singing is very inefficient, when compared to the power other stutters have of accomplishing their object in this way.

This man's palate presents no deviation from its natural state; it is neither too arched, too low, nor too narrow; his teeth and alveoli also are perfect. His tonsils are healthy and well developed, neither advancing more than they should do from between the palatine pillars, when the isthmus faucium is contracted; nor receding during its relaxation beyond their natural limits. His uvula appears more elongated than it should be, and touches the dorsum of the tongue, unless that organ be firmly compressed downwards, which is very difficult to accomplish, so that it is more probable the tongue approaches the uvula, than that the uvula descends to it. His tongue is unusually developed, corresponding in this respect to his lips, but in other respects it is well formed, and perfectly symmetrical.

He complains of no pain about the thorax, as other stutters experience, nor of any sense of suffocation to warrant the opinion that the muscles of the glottis are engaged in his infirmity.

Before attempting the apparently formidable operation of removing a portion of this patient's tongue according to the suggestion and practice of Professor Dieffenbach,* I determined to give him the chances of any benefit which milder and less sanguinary operations offered; and without being prejudiced in favour of one operation above another, I was led to adopt that which I have already employed with great benefit to numerous

patients, and in some even to cure, from the following experiment made in this case.

I placed the index and middle fingers of my right hand on either side of the patient's tongue, and contrived by such means that the apex of the organ should strike firmly and steadily against the upper alveolar arch; and on desiring him to repeat words requiring such a position of the organ to pronounce, his ability to do so was perceptibly improved.

I divided completely the anterior free borders of the genio-hyo-glossi muscles, and excised a triangular portion of both, and placing my little finger in the wound beneath the tongue, I felt for any structures that became tense when the tip of the tongue was elevated, and divided these also, having first passed a curved director beneath them. At the end of a few days the part had healed, and the patient did not experience the slightest benefit from this operation.

It being urged upon me by one or two professional friends who saw the patient some time after the operation of dividing the frenum linguae and the genio-hyo-glossi muscles, that the uvula might be more or less engaged, I snipped it off at its base. This proceeding was not followed either directly or remotely by any change in his pronunciation.

In the presence of several members of my profession, and with the kind assistance of my colleagues, Mr. Eland and Mr. Chance, and also of Mr. Avery, I removed a portion of the tongue from the posterior part of the organ.

To the prompt attention of Mr. Weiss I was indebted for the construction of three needles, which repeated operations on the dead subject suggested to me to have made.

These instruments were deeply curved, the curve being continuous with a straight stalk, an inch and a half long, which was received into an ordinary shaped handle.

Two lines distant from its point, the eye of the needle was formed, and was of sufficient size to receive a large ligature.

From the point of the needle to the angle formed at its junction with the stalk, the distance was an inch and a half, and the depth of the curve of the needle was an inch; so that when the instrument was introduced fairly into the tongue, there was included between its point and angle nearly an inch and a half of its dorsum, and within the curve of the needle a portion comprehending its entire thickness. The patient was seated in the manner best calculated to allow the light to enter his mouth, and his head was supported by an assistant. I seized the apex of the tongue with the thumb and fore-finger of my left hand, a napkin intervening, and drew it to the fullest extent out of the mouth, but without giving any great degree of uneasiness to the patient.

I next introduced one of the needles, entering its point a little behind the anterior half of the tongue, and exactly in the mesial line of the organ, and continued to direct it as much as possible downwards, until the little resistance offered by the less compact structures beneath the true substance of the tongue, and the length of the portion of the needle introduced, showed me that I had completely penetrated it. I next depressed the handle of the needle, and at the same time urged the instrument towards the base of the tongue,

* Vide *PROVINCIAL MEDICAL AND SURGICAL JOURNAL*, Vol. I. No. 25; also Professor Dieffenbach's memoir, translated by Mr. Joseph Travers.

until its point appeared more than an inch behind the orifice of entrance.

Before this needle was introduced, it was armed with a ligature, and the next proceeding was to seize the ligature by a forceps, and to draw it through the track of the wound, so as to leave it in the eye of the needle, ready to be immediately drawn through the divided edges of the tongue, after the desired portion was removed. This proceeding, however, was attended with more trouble than was anticipated, for there was great difficulty in seizing the ligature at the eye of the needle, in consequence of its being tense; and even when this was accomplished, as much difficulty was experienced in drawing it through the wound, from its adhesion to the tongue, and from having to pull it from behind forwards. After some three or four minutes, the ligature was arranged as intended, viz. in the eye of the needle, with an end lying in either angle of the mouth. This much being accomplished, Mr. Eland kept the tongue steady and protruded from the mouth by means of the needle already introduced; and both my hands being now at liberty, I seized alternately the left and the right halves of the tongue between the finger and thumb of my left hand, and introduced the other needles in the same manner as the first.

From the difficulty I experienced in withdrawing the ligature in the first instance, I introduced the second and third needles unarmed, and from being unprepared with ligatures fitted to enter their eyes at such a distance from the orifice of the mouth, several minutes were lost in effecting this otherwise simple proceeding. Having now included between the three needles, not only the portion of the tongue I intended to remove, but also those portions of the organ which were to retain the ligatures until adhesion between its cut edges was accomplished, and having completely penetrated the true substance of the tongue, and also part of the less denser tissues beneath it, I removed by two incisions a wedge-shaped portion of the organ. Both these incisions were made from above downwards, and completely penetrated the dense substance of the tongue. The first incision was the posterior one, which I made vertically, and about half an inch from the points of the needles; the second incision I commenced half an inch anterior to the first, and directed the knife obliquely downwards and backwards. The base of the portion removed corresponded to the dorsum of the tongue, its sides passed completely through the substance of the organ, and its apex involved the looser textures beneath.

My colleague, Mr. Chance, made an etching of the portion of the tongue immediately after its removal, and has furnished me with the accompanying outline of its dimensions.

Fig. 1.

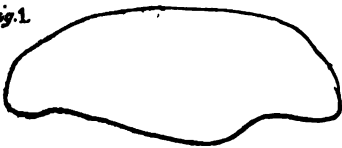


Fig. 2.



From the time the first incision was made, to the removal of the portion of the tongue, the hæmorrhage was very considerable; but from the facility with which the needles were withdrawn, and the ligatures made to occupy the very depth of the wound, and from the rapidity with which the divided edges of the tongue were brought together, and the ligatures tied, the entire quantity of blood lost did not amount to more than between two and three ounces. I had to introduce a fourth ligature, not on account of any hæmorrhage, but in consequence of the wound gaping at the right side of the tongue.

Notwithstanding that delays, incidental to an original proceeding of this kind, were to be expected, the entire time from the commencement of the operation to its termination occupied twenty minutes; and for this information, deemed by some surgeons so essential to their perfection as operators, I am indebted to a gentleman, whose position during its performance prevented his seeing any of its steps, and who measured its excellence by his timepiece.

The following drawing is an exact representation of the shape and size of the needles I employed.

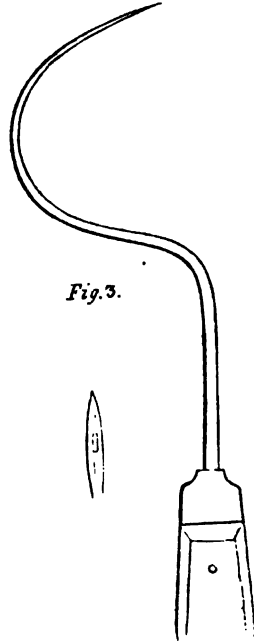


Fig. 3.

With three or four of these instruments, the removal of the required portion of the tongue can be accomplished with rapidity, and above all with perfect security to the patient from excessive hæmorrhage or any other serious consequence. By simply introducing each needle unarmed, and by having each ligature ready stiffened at its point, so as to enable the operator to pass it through the eye of the needle readily, five minutes should not be expended in completing the operation. The only difference between the familiar operation for hare-lip, performed by the merest tyro in surgical manipulations, and this new operation on the tongue is, that the former offers difficulties, from the awkward position of the organ, to excise it, and bring its edges together by ligatures, which the latter does not.

In both operations large and important arterial trunks are divided; the hæmorrhage in each is consequently severe, and the means by which we arrest hæmorrhage in each is precisely the same; we control the bleeding from the divided vessels, by bringing the edges of the tissues in which the vessels are into close approximation; in hare-lip by needles and the figure of eight suture, in the tongue by ligatures alone.

When the portion of tongue was removed, I withdrew the centre needle, leaving the double ligature in the wound; and whilst Mr. Avery steadied the tongue and prevented the gaping of the divided edges by means of the lateral needles, I easily tied the ligature. The lateral needles were then removed and the ligatures tied in the same manner, after which all hæmorrhage ceased.

In tying the ligatures, the edges of the wound were compressed more firmly than in other situations it would be deemed necessary to do, as upon this alone depended our means of preventing hæmorrhage.

Before the operation, the patient had his bowels freely moved by aperient medicine; when it was complete he was removed to bed, enjoined to observe perfect silence and rest, and was furnished with warm lemonade to moisten his mouth as often as he desired.

The patient possessed great fortitude, and all through the steps of the operation evinced the utmost nerve and steadiness.

I cannot close the account of the operative part of this case, without again expressing my feelings for the assistance I received at the hands of my colleagues and of Mr. Avery.

Evening, 8 o'clock. The patient is calm and quiet, the dorsum of his tongue and the upper part of his palate are covered with thin coagula of blood; he complains of difficulty of swallowing, which is not occasioned by any impediment from swallowing at the isthmus faucium, but from the pain he experiences when he endeavours to move his tongue. The mucus and saliva in consequence flow from the anterior opening of the mouth, and these secretions, as might be expected, are in larger quantity than natural. His pulse is 78, he is free from excitement, and does not complain of thirst. On examining the tongue, the ligatures can scarcely be perceived, on account of the position of the wound towards its root. Ordered cold tea.

April 2, two P.M. Twenty-four hours after the operation. Slept well last night, skin cool, pulse 76 and natural; complains of much difficulty in swallowing. The secretion of mucus into the mouth is very great, and is so viscid that he is obliged to remove it frequently with a handkerchief. There has been no hæmorrhage; the edges of the wound are in apposition; the tongue is not swollen, and is of its natural temperature.

Bowels have not been moved; one ounce of castor oil at once.

He was not questioned, and was desired to express his wants by signs.

3. Mr. Streeter and Mr. Chance saw the patient with me this day at half-past 4 P.M. His tongue is swollen at the wound. He could not swallow the castor oil ordered him yesterday; pulse 90 and full; slept very restlessly last night. Hab. enema cathart. statim.

4. Pulse 80, has lost its fulness; skin cool and

moist. Enema operated freely; tongue less swollen, can swallow; took a good sized cup of gruel. When asked if he slept well, said, "No, sir," without stammering; secretion of mucus is less, but it is still very viscid: complains of a little cough from irritation.

5. Edges of wound of tongue in close apposition and united; sutures not loosening. Swelling of tongue subsiding; can swallow freely; pulse 70. Dorsum of tongue is covered with thick sordes and mucus. He has not free motion of the tongue.

When he endeavours to speak, the spasm of the lips is still present, but in a very slight degree. He pronounced a few words, requiring the movement of the tongue, without stammering, but it is obviously impossible to judge of the effects of the operation as yet.

6. Removed ligatures. No hæmorrhage; pulse natural; can swallow well. The dorsum of the tongue is covered with thick sordes, which is readily removed with a spatula. The edges of the incision of the tongue are in perfect contact, and the ligatures have left deep indentations where they were applied; between these the tongue is slightly swollen.

7. Walking about the house: tongue cleaning rapidly. He speaks much more fluently, but still he has a slight hesitation; spasms of lips and nares are not present.

20. In the presence of Mr. Avery, Mr. Chance, and Mr. Grey, the patient's ability to articulate was tested by noticing the time he took to pronounce certain words, sentences, &c. The following are the results:—

"Thomas Young;" one and a half seconds. "No, sir;" instantly. "Number 18, Hull's Place, John's Row, St. Luke's;" seven seconds and five seconds. "Total;" instantly. "Warm water;" instantly. "Every man;" hesitates at man for a second. "I have not seen Mr. Lucas since Wednesday;" four seconds—same sentence, fifteen seconds; this difference arose from his inability to pronounce the letter "s" in "seen," and he repeated "I have not," three times before finishing the sentence.

We gave him a magazine, and he read out of it the following paragraph twice. The first time it took him sixty-five seconds to do so, the second time forty-five seconds.

"It was, however, ready by the time, and reflected the greatest credit on Edwin's talents, and was moreover sold, on the second day's exhibition, for a very considerable sum. But there was the portrait of a young lady, hung just under it, which attracted general attention, and the intimation of 'not for sale' affixed to it, awakened even a stronger degree of admiration."

He now speaks with some hesitation, particularly at commencing, and all through with a thickness of speech.

25. Continues as at last report. Dr. Burgess tested his ability to speak in words and sentences of various kinds.

May 2. He is greatly benefited by the operation, but not cured. He can make himself readily understood at all times, but his hesitation is at one time worse than at another. He said that yesterday evening he found great difficulty in saying "ten shillings;" to-day he says it readily. He evinces no appearances of spasm of the lips or nares, and says that he has had none since the operation.

I have endeavoured, to the best of my ability, to lay before the members of my profession, in the account of this case, a true and faithful statement of facts; neither magnifying difficulties, colouring symptoms, nor concealing that which should be made known.

From the time the operation was performed, to the date of the last report, several professional friends have seen this patient; and whenever I had an opportunity, I took the report of his condition at the time from those present, rather than from my own view of his state.

None but those who saw Thomas Young before the operation was performed, can judge of the great amount of benefit he has received. Before the operation he was incapable of even saying yes or no, and so bad was he in this respect, that my colleague, Dr. Lilburne, desired him to express one or the other by pointing his finger upwards or downwards. He can now make himself perfectly understood when he speaks slowly and deliberately; before he could not do so. It is to be hoped that this condition will continue.

This operation was performed on April 1, 1841, at the Metropolitan Free Hospital, Carey-street, and by a gift of foresight which falls to the lot of few, was announced, several days previous to its performance, by the editor of the *Medico-Chirurgical Review*.

CASES

OF AN

ACCIDENTAL PASSAGE OF A FEMALE CATHETER INTO THE BLADDER.

BY JONATHAN TOOGOOD, ESQ.

SENIOR SURGEON TO THE BRIDGEWATER INFIRMARY.

CASE I.—During the last year I was requested by a medical friend to meet him in consultation on a case, where he had permitted a silver catheter to slip into a lady's bladder. The patient had had, a few weeks previously, a severe labour, producing paralysis of the bladder, and rendering the introduction of the catheter necessary night and morning. A few hours before my visit, her medical attendant, in attempting to draw off the water, experienced some difficulty, and whilst making more pressure than usual, the catheter slipped into the bladder. He immediately attempted to reach it with his dressing forceps, but failed. I advised him to wait until it became necessary to draw off the water again, then pass a longer catheter, and endeavour to discover its position; but it could not, however, be detected, and the operation was repeated several times before it was felt. The following plan was then tried:—

A piece of sponge tent, somewhat longer than a common female catheter, and of the size of the little finger, was passed into the bladder, without difficulty or without giving pain, and allowed to remain eight or ten hours, during which time the water passed freely through it. At the end of that period it was removed, and the forefinger of the left hand passed readily into the bladder. The catheter was felt lying across, one end resting on the pubes, and the other embedded in the folds at the back part of the bladder. There was considerable difficulty in bringing it into the urethra,

which was effected by carrying the forefinger of the right hand into the vagina, and pressing the bladder backwards and upwards, which brought that part of the instrument lying over the pubes within reach of the other finger, and then into the urethra, from whence it was readily removed by the dressing forceps. All this was effected with very little pain, and without the patient or her friends even being aware of what had happened. The instrument, which was one of the sliding short catheters recommended by Mr. Jewel, remained in the bladder fifteen days, producing but very slight irritation.

This is, I believe, a very rare accident; and, on looking at the catheters which are generally in use, one only feels surprised that it does not happen more frequently, as there is not sufficient guard to prevent it. Mr. Abernethy used to relate in his lectures a case of this kind, where the catheter was not extracted; and a long time afterwards an abscess formed in the side, which was opened and discharged freely for some days, when, on passing a probe, a hard substance was felt, and extracted with a pair of common forceps, which proved to be a catheter.

Sir A. Cooper lately obligingly showed me a drawing of a calculus formed over a catheter which had got into the bladder, and which he removed by the usual operation some years since at Guy's Hospital. To this gentleman I am indebted for suggesting the plan which proved so successful in this case.

I observed, in this case, that the whole internal lining of the vagina was in a sloughing state, which I think very frequently occurs after laborious parturition, where the head rests for many hours in the vagina, although I do not remember to have seen it noticed; much of the soreness and pain which women complain of after such labours arises, in my opinion, from this cause, and would, probably, lead to adhesions, if nurses did not use the precaution of smearing the parts frequently with ointment.

CASE II.—Elizabeth Creed, married about four months, had retention of urine, and was relieved several times by the catheter, when, in passing it one day, it unfortunately slipped from the surgeon's fingers into the bladder. No attempt was made to extract it, and about a fortnight afterwards she was brought a distance of thirty miles to the Bridgewater Infirmary. Having ascertained the presence of the instrument, I introduced a piece of sponge tent into the bladder in the evening, and allowed it to remain during the night. On the following morning I withdrew the sponge, and passed my finger with some difficulty into the bladder, and felt the catheter resting on the pubes, from whence it was brought into the urethra with a pair of dressing forceps, and readily extracted. In this case the instrument remained in the bladder seventeen days, and produced considerable irritation. There was much greater difficulty in dilating the urethra in this than in the former case, which occurred after delivery; in the latter, the urine passed involuntarily until the fourth day, but in the former the urethra regained its power immediately after the removal of the catheter. Two such cases having been brought to my notice within a few months, it would appear that this accident is not of such rare occurrence as is generally imagined. It may frequently happen, with

the instruments usually employed, from sudden shrinking, or change of the patient's posture. Under this apprehension I always use a flexible male catheter, which is more convenient and cleanly, particularly in all cases where it is necessary to empty the bladder during labour.

The easy and effectual method of dilating the female urethra with sponge tent, is safer and better than using a metallic dilator. It may be employed to remove calculi, and in many instances render the operation of lithotomy unnecessary.

Bridgewater, April 1841.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, MAY 8, 1841.

We stated in our last number, that in the progress of the reform question, the proceedings of the Provincial Association had been directed in accordance with certain leading principles, generally recognised by the Medical Profession. It will be advantageous to take a more comprehensive view of these proceedings, and to institute a more detailed examination of the acts of the Association, in relation to the three great questions of education, organization, and protection. The means of affording medical relief to the sick poor, adopted by the Poor-law Commissioners and Boards of Guardians acting under their direction, early engaged the attention of the Association. A committee was appointed at Oxford, in the year 1835, which has from that time been in active operation, and from which much valuable information has emanated; reports from the committee have been laid before the Association at its successive anniversaries. Many important suggestions have been made, petitions to Parliament drawn up, an investigation before a committee of the House of Commons obtained, and such evidence brought forward, as, notwithstanding the underhand dealings and open opposition of interested parties, has led to a modification of some of the obnoxious regulations, and a partial discontinuance of certain of the practices complained of. The fatally injurious effects of quackery upon the public health, and the detriment experienced by the legally qualified medical practitioner from the encouragement afforded to empirical pretenders of every description, were brought before the general meeting at Bath, in the year 1838. A committee was subsequently appointed by the council to investigate this subject, and to point out the means by which due protection might be afforded to the public, and the medical practitioner secured in the exercise of his

just rights. Valuable reports from this committee were presented at the succeeding anniversaries at Liverpool and Southampton, which embody a mass of information upon the evils resulting from the nefarious and homicidal practices of quacks, and contain many excellent suggestions respecting the prevention of the evils so generally felt and complained of. The questions of education and organization have in like manner received the earnest attention of the Association. A committee was appointed at Cheltenham, to watch over the interests of the profession, and from the proceedings of this committee, which is still in operation, measures of great importance, and calculated to exercise considerable influence on the future prospects of the medical profession, have emanated. The intimate connexion of the proceedings of this committee with the reform question, renders it necessary to enter somewhat more into particulars. In their report presented at the Liverpool meeting in 1839, the necessity of improvement in the system of medical education was strongly enforced, and the plan of study which had been at that time recently adopted, and has since been followed out in the University of London, was recommended as being calculated to produce medical practitioners of a high standard of qualification, and altogether well adapted to the exigencies of the public service. The committee was appointed in 1837; but entertaining the hope that a report upon the evidence taken before a committee of the House of Commons appointed in 1834, to "inquire into, and consider the laws, regulations, and usages, regarding the education and practice of the various branches of the Medical Profession in the United Kingdom," would be forthcoming, and that suitable measures would be adopted in consequence, they did not feel themselves called upon to make any communication to the Association until all expectation of such proceedings on the part of the legislature had ceased. In this, the first report of the committee, it is observed, that "There are two modes by which, speculatively, an effective reform of the profession might be attempted; either by first organizing the profession so as to determine specially its classes and gradations, and then, in conformity with the system thus established, devising suitable qualifications for whatever departments the collective profession should comprise, leaving the special qualifications of each branch to be regulated by the government under which it should be more immediately placed; or by beginning with qualification, and by founding on it the gradation which should be recognized in a well-regulated profession." The second of these modes seemed to the committee, after mature consideration, to be the more eligible one,

and they accordingly recommended the immediate adoption of measures calculated for the attainment of this end. The plan of education, then, recently proposed by the University of London, as we have remarked, appeared to the committee suitable for the purpose of securing the qualifications desired; and they therefore recommended this as the ground-work of the changes contemplated by them, as being necessary in the general system of medical education; and in a petition to parliament, drawn up for the approval of the Association, this plan was expressly pointed out as well calculated for the fulfilment of the object in view. The report was read to the meeting, and was received and ordered to be printed. The reception of the report, however, by no means implied accordance on the part of the Association with all its provisions, nor the carrying out of its recommendation in full. Accordingly, on a subsequent motion brought forward for the adoption of the petition for presentation to both Houses of Parliament, considerable discussion ensued as to the propriety of pointing out any specific plan of education for the approval of the legislature, and the clauses relating to the London University were subsequently withdrawn. We have entered into these details, because we think the line of conduct pursued by the Association is in this respect peculiarly fitted for the circumstances under which that body is placed. They admit and support the general principle, but the specific plan upon which the principle is to be carried out is not attempted to be decided upon. The principle of qualification is clear and simple, and may, therefore, be as clearly recognized and supported by the whole weight and influence of the Association; but the precise amount of this qualification, and the mode in which it is to be attained, are not capable of being determined without much reflection, and involve too many considerations to be discussed or decided upon by a meeting constituted, or at least circumstanced, as the general meetings of the Provincial Association have hitherto been.

At the Liverpool meeting this committee was reappointed and empowered, with the concurrence of the council, to adopt any further measures that might appear to be necessary. The second report, read at the Southampton meeting, and recently published in the ninth volume of the Transactions, presents a retrospect of the proceedings of the committee during the year, and embodies their matured opinions on the subject of reform. In this report the committee, adhering to the principles by which they had been formerly guided, still consider qualification as of primary importance.

"Your committee," says the report, "still

deem the qualification of the individual practitioner, and the consolidation of the profession, the main requisites: for, until this be legally established, no organization of the collective body, for the purpose of self-government, could be projected, or even imagined. It is for this fundamental provision the legislative authority is chiefly if not alone needed; and, on this account, your committee are the steady advocates of making this object the sole aim, until the essential point be gained. To intermix the subject of qualification and government, and to seek to compromise both in one legislative act, would appear to your committee eminently unwise. Qualification, and the necessity of rendering it uniform, is a simple subject, readily comprehended, and one on which but little difference of opinion can exist. On government, the variety of opinions will, for a time, be endless; and not until a duly qualified profession is legally established will the confusion which now envelopes the question clear away, so as to admit of the principles by which suitable government should be distinctly discerned. Your committee are well aware that adequate and suitable government must be provided as well as qualification; but their deliberate judgments would lead them to seek these ends consecutively, instead of attempting to embrace both in one ordinance."

The report subsequently points out the necessary disturbance which such a measure must produce of the partial institutions at present existing, or which have hitherto presided over the profession, and the consequent opposition which may be expected from influential individuals connected with these institutions. The course of events daily proves the justice of these observations; but when an onward course is commenced, it is often difficult for those who have assisted in originating it, to preserve that salutary control which is necessary for a successful termination of their labours, or for a satisfactory settlement of the points in question, upon a sound and permanent basis. The natural tendency to acceleration is rapidly developed; the advance becomes hurried from the impetus progressively acquired, and the cool and calculating reasonings of the closet are often overruled and rendered nugatory in action. The report was received, and its sole recommendation, that the central council of the Association should be especially authorized to act for the general members, in whatever might arise connected with Medical Reform until the next anniversary, complied with by an express motion to that effect. The Association, however, in receiving the report and adopting the recommendation with which the document concluded, did not conceive themselves, as it would seem, pledged to the principles therein

advocated. The meeting, whether advisedly or not is not here the question, proceeded to make another step in advance, and affirmed the principle of representation. A resolution, "That it is highly important that further steps should now be taken to obtain Medical Reform on the principles of a uniform test of qualification and a representative system of government," was proposed and adopted, and to this extent, therefore, the Association, as a body, now stands pledged. The proceedings of the central council, in fulfilment of the trust reposed in them, have been, at various times, made public through the medium of this journal. They are, therefore, before the profession, and have been already on former occasions shown to be in accordance with the principles advocated in the reports, and recognized, with certain modifications, by the general meetings.

These reports, as so modified, recognize uniformity of qualification, and they respect existing institutions as far as is consistent with the principle upon which reform should be based, and the Association has proceeded a step farther, and affirmed the principle of representation in the governing body. These are the principles hitherto adopted, but we can discern nothing in these authentic proceedings of the Association which, either in the question of qualification or organization, recognizes any specific plan on which either the condition of the whole body, or the qualification of its members, is to be modelled. On the contrary, when the committee had on one occasion pointed out a special system of education as fitting to be recommended to the legislature for adoption, the Association so far refused to sanction the recommendation of the report. Whatever, therefore, may be the advantages or disadvantages of any particular method of education, the Association remains perfectly free, and stands pledged merely to the principle admitted by all, that there should be a uniform standard of qualification throughout the kingdom. Whatever may be the fitness of any individual form of government, the Association is perfectly unshackled, and pledged only to the principle of representation for which the great body of the profession are disposed to contend, and from which only a few individuals, whose judgments are warped by private and personal considerations, dissent. We see nothing therefore, either in the proceedings of the general meetings, in the reports of the committee, or in the subsequent acts of the council, as far as they have been published, which lends any support to the One-Faculty Scheme. We do not here pass any opinion upon the practicability or feasibility of the incorporation of the whole body of the profession into one general faculty. We do not profess here to dis-

cuss the merits of this question, to advocate its adoption as a remedy for every grievance on the one hand, or to reject it at once as an impracticable dream on the other. It may or may not be a beneficial and fitting measure, but all that we now contend for is, that the Association is not pledged in any way to its adoption, and we cannot understand how even the most sanguine of the supporters of such a measure could for one moment have drawn the inference. The Association has not as yet declared any opinion on the point; it has affirmed, as we have before remarked, the principles of uniformity of qualification and representation in the appointment of the governing body; but, in so doing, neither recognizes the levelling of all grades, nor the incorporation of the profession after this or that form, any more than in desiring to respect, as far as practicable, existing institutions, it pledges itself to the eighteen modes of qualification adopted in the colleges and schools, or the countenance of the corporations in their present system of exclusiveness and irresponsibility.

ACADEMY OF SCIENCES.

Paris, April 26.

EMBRYOLOGY.

M. COSTE read a memoir, the object of which was to prove,

1st. That neither the germinal spot, nor the corpuscles which have been observed in the germinal vesicle, can be regarded as possessed of life before conception.

2d. That the walls of the germinal vesicle are absorbed and disappear at the moment that the ovum is detached from the ovary.

3d. That, as a consequence of such absorption, the matter which was contained in the vesicle remains in the centre of the follicle, and becomes confounded with the granular matter of the latter, which is now converted into a uniformly granular disc.

ACADEMY OF MEDICINE.

APRIL 27.

TREATMENT OF ANCHYLOSIS BY M. LOUVRIER'S METHOD.

M. BERARD read a report on the method of treating anchylosis by forcible extension. The machine had been employed in twenty-two cases, and in three only had any accidents been produced by it. In one case the patient died three weeks after the operation; in the second, the patient suffered such extreme pain, as to lose his reason for a short time, and the artery seemed to have been ruptured; the man, however, survived. In the third case, the patient died six weeks after operation. Hence the reporter concludes, that the treatment of M. Louvrier is dangerous, and not to be recommended, because the advantages obtained

are not sufficient to counterbalance the dreadful results occasionally following the violence employed.

CASE OF LAURA BRIDGEMAN,

A BLIND AND DEAF CHILD.

WE are indebted to the kindness of Miss Edgeworth for a "Report from the Massachusetts Asylum for the Blind," from which we extract the following particulars of one of the most interesting cases that has ever been recorded.

Laura Bridgeman was born in Hanover, New Hampshire, on the 21st of December, 1829. She is described as having been a very sprightly and pretty infant, with bright blue eyes. She was, however, so puny and feeble, until she was a year and a half old, that her parents hardly hoped to rear her. She was subject to severe fits, which seemed to rack her frame almost beyond its power of endurance, and life was held by the feeblest tenure; but when a year and a half old she seemed to rally; the dangerous symptoms subsided; and at twenty months old she was perfectly well.

Then her mental powers, hitherto stunted in their growth, rapidly developed themselves; and during the four months of health which she enjoyed, she appears to have displayed a considerable degree of intelligence.

But suddenly she sickened again; her disease raged with great violence during five weeks, when her eyes and ears were inflamed, suppurated, and their contents were discharged. But though sight and hearing were gone for ever, the poor child's sufferings were not ended; the fever raged during seven weeks; for five months she was kept in bed in a darkened room; it was a year before she could walk unsupported, and two years before she could sit up all day. It was now observed that her sense of smell was almost entirely destroyed; and, consequently, that her taste was much blunted.

It was not until four years of age that the poor child's bodily health seemed restored, and she was able to enter upon her apprenticeship of life and the world.

As soon as she could walk, she began to explore the room, and then the house: she became familiar with the form, density, weight, and heat of every article she could lay her hands upon. She followed her mother, and felt her hands and arms, as she was occupied about the house; and her disposition to imitate led her to repeat everything herself. She even learned to sew a little, and to knit.

But the means of communication with her were very limited; she could only be told to go to a place by being pushed; or to come to one by a sign of drawing her. Petting her gently on the head signified approbation; on the back, disapprobation.

She showed every disposition to learn, and manifestly began to use a natural language of her own; she had a sign to express her idea of each member of the family; as drawing her fingers down each side of her face, to allude to the whiskers of the one; twirling her hand around,

in imitation of the motion of a spinning wheel, for another; and so on. But although she received all the aid that a kind mother could bestow, she soon began to give proof of the importance of language to the development of human character: caressing and chiding will do for infants and dogs, but not for children; and by the time Laura was seven years old, the moral effects of her privation began to appear.

At this time, Mr. Howe heard of the child, and immediately hastened to Hanover to see her. He found her with a well-formed figure; a strongly-marked, nervous-sanguine temperament; a large and beautifully shaped head, and the whole system in healthy action.

The parents were easily induced to consent to her coming to Boston, and on the 24th of October, 1837, they brought her to the Institution.

There was one of two ways to be adopted; either to go on to build up a language of signs on the basis of the natural language which she had already commenced herself; or to teach her the purely arbitrary language in common use. The former would have been easy, but very ineffectual; the latter seemed very difficult, but, if accomplished, very effectual; it was determined, therefore, to try the latter.

The first experiments were made by taking articles in common use, such as knives, forks, spoons, keys, &c., and pasting upon them labels with their names printed in raised letters. These she felt very carefully, and soon, of course, distinguished that the crooked lines *spoon*, differed as much from the crooked lines of *key*, as the spoon differed from the key in form.

Then small detached labels, with the same words printed upon them, were put into her hands; and she soon observed that they were similar to the ones pasted on the articles. She showed her perception of this similarity by laying the label *key* upon the key, and the label *spoon* upon the spoon. She was encouraged here by the natural sign of approbation, patting on the head.

The same process was then repeated with all the articles which she could handle; and she very easily learned to place the proper labels upon them. It was evident, however, that the only intellectual exercise was that of imitation and memory. She recollected that the label *book* was placed upon a book, and she repeated the process first from imitation, next from memory, with only the motive of love of approbation, but apparently without the intellectual perception of any relation between the things.

After a while, instead of labels, the individual letters were given to her on detached bits of paper: they were arranged side by side, so as to spell *book*, *key*, &c.; then they were mixed up in a heap, and a sign was made for her to arrange them herself, so as to express the words *book*, *key*, &c., and she did so.

Hitherto, the process had been mechanical, and the success about as great as teaching a very knowing dog a variety of tricks. The poor child had sat in mute amazement, and patiently imitated everything her teacher did; but now the truth began to flash upon her—her intellect began to work—she perceived that there was a way by which she could herself make up a sign of anything that was in her own mind, and show it to

another mind, and at once her countenance lighted up with a human expression: it was no longer a dog, or parrot,—it was an immortal spirit, eagerly seizing upon a new link of union with other spirits! I could (says Mr. Howe) almost fix upon the moment when this truth dawned upon her mind, and spread its light to her countenance; I saw that the great obstacle was overcome, and that henceforward nothing but patient and persevering, but plain and straightforward efforts were to be used.

The result thus far is quickly related, and easily conceived; but not so was the process; for many weeks of apparently unprofitable labour were passed before it was effected.

When it was said above that a sign was made, it was intended to say that the action was performed by her teacher, she feeling his hands, and then imitating the motion.

The next was to procure a set of metal types, with the different letters of the alphabet cast upon their ends; also a board, in which were square holes, into which holes she could set the types, so that the letters on their ends could alone be felt above the surface.

Then, on any article being handed to her, for instance, a pencil, or a watch, she would select the component letters, and arrange them on her board, and read them with apparent pleasure.

She was exercised for several weeks in this way, until her vocabulary became extensive; and then the important step was taken of teaching her how to represent the different letters by the position of her fingers, instead of the cumbrous apparatus of the board and types. She accomplished this speedily and easily; for her intellect had begun to work in aid of her teacher, and her progress was rapid.

The whole of the succeeding year was passed in gratifying her eager inquiries for the names of every object which she could possibly handle; in exercising her in the use of the manual alphabet; in extending in every possible way her knowledge of the physical relations of things; and in proper care of her health.

During this year, and six months after she had left home, her mother came to visit her, and the scene of their meeting was an interesting one.

The mother stood some time, gazing with overflowing eyes upon her unfortunate child, who, all unconscious of her presence, was playing about the room. Presently Laura ran against her, and at once began feeling her hands, examining her dress, and trying to find out if she knew her; but not succeeding in this, she turned away as from a stranger, and the poor woman could not conceal the pang she felt, at finding that her beloved child did not know her.

She then gave Laura a string of beads which she used to wear at home, which were recognized by the child at once, who, with much joy, put them around her neck, and sought me eagerly, to say she understood the string was from her home, one hundred miles off.

The mother now tried to caress her, but poor Laura repelled her, preferring to be with her acquaintances.

Another article from home was now given her, and she began to look much interested; she examined the stranger much closer, and gave me to understand that she knew she came from Han-

over; she even endured her caresses, but would leave her with indifference at the slightest signal. The distress of the mother was now painful to behold; for, although she had feared that she should not be recognised, the painful reality of being treated with cold indifference by a darling child was too much for woman's nature to bear.

After a while, on the mother taking hold of her again, a vague idea seemed to flit across Laura's mind, that this could not be a stranger; she therefore felt her hands very eagerly, while her countenance assumed an expression of intense interest—she became very pale, and then suddenly red—hope seemed struggling with doubt and anxiety, and never were contending emotions more strongly painted upon the human face: at this moment of painful uncertainty, the mother drew her close to her side, and kissed her fondly, when at once the truth flashed upon the child, and all mistrust and anxiety disappeared from her face, as with an expression of exceeding joy she eagerly nestled to the bosom of her parent, and yielded to her fond embraces.

After this, the beads were all unheeded; the playthings which were offered to her were utterly disregarded; her playmates, for whom but a moment before she gladly left the stranger, now vainly strove to pull her from her mother; and though she yielded her usual instantaneous obedience to my signal to follow me, it was evidently with painful reluctance. She clung close to Mr. Howe, as if bewildered and fearful; and when, after a moment, he took her to her mother, she sprang to her arms, and clung to her with eager joy.

At the end of the year 1829, after she had been twenty-eight months under instruction, the following report was made of her case:—

"Having mastered the manual alphabet of the deaf mutes, and learned to spell readily the names of everything within her reach, she was then taught words expressive of positive qualities, as hardness, softness.

"It was found too difficult, however, then to make her understand any general expression of quality, as hardness, softness, in the abstract.

"Next she was taught those expressions of relation to place which she could understand.

"She easily acquired a knowledge and use of active verbs, especially those expressive of *tangible action*: as to walk, to run, to sew, to shake.

"At first, of course, no distinction could be made of mood and tense; she used the words in a general sense, and according to the order of her *sense of ideas*. Thus, in asking some one to give her bread, she would first use the word expressive of the leading idea, and say, *Bread, give, Laura*. If she wanted water, she would say, *Water, drink, Laura*.

"Soon, however, she learned the use of the auxiliary verbs, of the difference of past, present, and future tense. For instance, here is an early sentence: *Keller is sick—when will Keller well*; the use of *be* she had not acquired.

"Having acquired the use of substantives, adjectives, verbs, prepositions, and conjunctions, it was thought time to make the experiment of trying to teach her to *write*, and to show her that she might communicate her ideas to persons not in contact with her.

"It was amusing to witness the mute amaze-

ment with which she submitted to the process, the docility with which she imitated every motion; and the perseverance with which she moved her pencil over and over again in the same track, until she could form the letter. But when at last the idea dawned upon her, that by this mysterious process she could make other people understand what she thought, her joy was boundless.

"Never did a child apply more eagerly and joyfully to any task than she did to this; and in a few months she could make every letter distinctly; and separate words from each other; and she actually wrote, unaided, a legible letter to her mother, in which she expressed the idea of her being well, and of her expectation of going home in a few weeks.

"She is familiar with the processes of addition and subtraction in small numbers. Subtraction of one number from another puzzled her for a time; but by help of objects she accomplished it. She can count and conceive objects to about one hundred in number: to express an indefinitely great number, or more than she can count, she says, *hundred*."

These reports bring down the history of her instruction to the commencement of the year 1840, when she had been two years and two months under instruction, and had attained about the same command of language as common children of three years old.

We regret that our space will not permit us to follow Mr. Howe to the termination of his interesting narrative. During the last year a very striking improvement took place in the physical, moral, and intellectual conditions of the child. There was a marked increase in the size of the forehead; she obtained a much greater command of language, particularly of pronouns; but it was very difficult to make her understand the value of comparison.

In her intellectual character, it is pleasing to observe an insatiable thirst for knowledge, and a quick perception of the relations of things. In her moral character, it is beautiful to behold her continual gladness—her keen enjoyment of existence—her expansive love—her unhesitating confidence—her sympathy with suffering—her conscientiousness, truthfulness, and hopefulness.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 29, 1841.

Dr. WILLIAMS, President.

READ, OBSERVATIONS ON THE ANATOMY OF THE LUNGS. BY T. ADDISON, M.D., PHYSICIAN TO GUY'S HOSPITAL.

THE author begins by expressing an opinion that notwithstanding the attention which has been devoted of late to morbid anatomy, it is by no means apparent that those researches have been made sufficiently available to explain the function and structure of obscure, intricate, and complicated parts of the body in a state of health.

Proceeding on this principle of rendering healthy and morbid anatomy materially subservient to the elucidation of each other, the author hopes that he has succeeded in illustrating, if not demonstrating,

certain points of great interest with reference to the lungs, some of which have been already pretty generally admitted, whilst others are perhaps altogether novel.

The results of his investigations seem to him to prove, almost beyond dispute, that the aerial cellular tissue of the lungs is made up of well-defined, rounded, or oval lobules, united to each other by interlobular cellular membrane, each lobule constituting a sort of distinct lining in miniature, having its own separate artery and vein; that those lobules do not communicate directly with each other; that they do not, as Reissessen has supposed, consist of the globular extremities of as many bronchial tubes, but on the contrary, as Dr. Hodgkin has supposed, are made up of a collection of cells, in which, by a common opening, a minute filiform bronchial tube abruptly terminates; that the pulmonary artery accompanies the bronchi, branch for branch, to the minutest divisions of the latter; that pneumonia consists essentially of inflammation of the aerial cells; that pneumonia and inflammatory tubercle are identical; that acute pneumonia in healthy constitutions scarcely ever leads to the formation of an abscess, unless deposit previously existed, but that when it occurs in cachectic or broken-down constitutions, or supervenes, in the progress of organic diseases, it causes one or more distinct lobules to soften down into an ill-conditioned abscess; that ordinary tubercles present the same varieties in the lungs that they do in serous membranes; that emphysema of the lungs consists chiefly of mere dilatation of the cells, but in part, also, of more or less extensive laceration of them; and lastly, that the circumscribed gangrene of Laennec is commonly, if not uniformly, a mere effect or advanced stage of pulmonary apoplexy.

The author's object, however, in the present communication, is not to solicit attention to any of these matters, but merely to point out a mode of distribution of the pulmonary veins, which has not, as far as he knows, been noticed by any preceding anatomist. After having cited passages from the works of Cloquet, Meckel, Adelon, and Bichat, touching the situation and course of the minute pulmonary veins, the author proceeds to show the mode of distribution which his own dissections appear to him to demonstrate. It would exceed the limits of an abstract, to give the author's description at length: suffice it to say, that the lung is made up, essentially, of a vast expanse of membrane, the interior of which is unceasingly exposed to the influence of atmospheric air, and upon the surface, or in the substance of which, are spread out the capillary ramifications of the pulmonary artery; these arterial capillaries passing from thence to the exterior of the membrane, to form the pulmonary vein which, throughout its whole course, is found to be situated in the exterior of the aerial cellular structure of the organs.

The author indulges a hope, that with a knowledge of this striking distribution of the pulmonary vein, we shall in future be more successful in our investigations into the pathology of phthisis, and especially that it will set at rest the long agitated questions respecting the origin and seat of pulmonary apoplexy.

CONFERENCE ON MEDICAL REFORM.

*Fourteenth Meeting of the Delegates, Tuesday,
March 2, 1841.*

Present,—Dr. M'Donnell, Dr. Webster, Dr. Maunsell, Dr. R. D. Thomson, Mr. Davidson, Mr. Smith, Mr. Evans, Mr. Carter.

CONFERENCE WITH THE APOTHECARIES' COMPANY.

The delegates, according to appointment, proceeded to Apothecaries' Hall at two o'clock. They were received by Mr. Williams, master of the company, Mr. Bacot, Mr. Robinson, Mr. Nussey, and Mr. Drew.

Mr. M'Donnell, as chairman of the deputation, said that certain changes, it was well known, were contemplated by the medical corporations of London. The delegates would be happy to be informed of their nature; their own opinions on the leading points connected with the subject of reform had appeared in print, and they should be glad to afford any explanation with regard to them which might be required.

The Master said, certain opinions had been made public, but no decision had been come to as to the precise nature of the alterations and amendments which those bodies would ultimately feel it their duty to recommend to the legislature.

Mr. Robinson said, he thought that the choice of examiners should not be limited to members of the company; that five years' apprenticeships should be done away with; that prosecutions of unlicensed practitioners should be discontinued, and that some other means should be adopted of guarding the public from imposition and ignorance. A system of registration was necessary; the admission to a certain extent of the licentiates to the power of electing a given proportion of the Court of Examiners would be advisable. He was also of opinion that some regulations should be made to equalize medical education throughout all parts of the kingdom.

At the request of the court, Mr. Carter read the opinions of the conference on certain leading points connected with the subject of medical reform.

The Master said, he should be glad to consider the document just read.

Dr. Webster observed, that much heart-burning had been occasioned ever since the year 1815, because graduates of universities and members of colleges were prevented from compounding their own prescriptions without the licence of the Apothecaries' Company. Did the Court think it just that such persons as he was speaking of should be compelled to undergo an examination before this society?

Mr. Bacot said, that if an uniform plan of education were established throughout Great Britain, he believed the company would not be unwilling to forego the present exclusive privileges of their licentiates. The Act was binding; at present they were not at liberty to compromise its provisions. He should be very glad to see an uniform system of education established.

Mr. Carter inquired if the company had contemplated the expediency of a presiding body being appointed, which should have power to regulate the

qualifications of candidates for practice in each division of the kingdom.

The Master said, that the appointment of such a body had not yet been considered.

Dr. Webster inquired, to what extent were the company willing to admit of the representative principle in the election of their officers?

Mr. Robinson said, it had been proposed that a part of the Court of Examiners should be elected by licentiates of ten years' standing, and who resided in London, or within ten miles of it.

Mr. Carter asked, if there was a likelihood of the elective privilege creating greater agitation than was now occasioned from the want of it?

Mr. Nussey said, he should be glad to see a fuller recognition of the elective principle than that which had been mentioned, but he knew not in what way it could be brought about.

Dr. Webster inquired, with what share of the examinations would the company be satisfied under a new system?

Mr. Robinson said, that they should not expect to examine in surgery, or exclusively in midwifery. They could, if their Act were properly enforced, require two fellows of the College of Physicians to be present at their examinations. The Court of Examiners was composed of general practitioners, who had, almost universally, diplomas from the College of Surgeons. They were appointed to examine persons who were to be engaged in the same line of practice with themselves. The Court of Examiners had no connexion whatever with the trade of the Apothecaries' Company.

*Fifteenth Meeting of the Delegates, Monday,
March, 8, 1841.*

Present,—Dr. Marshall Hall, F.R.S., in the chair.

Dr. Webster, Dr. Maunsell, Mr. Ceely, Mr. Davidson, Dr. R. D. Thomson, Mr. Smith, Mr. Evans, Mr. Carter.

A letter from Dr. Cowan was read, to the effect that, in consequence of certain resolutions passed by the council of the Worcester Provincial Association, he was no longer a member of this conference.

Dr. Maunsell proposed, and Mr. Davidson seconded, the adoption of the following petition, and that it should be sent, with a circular, to various parts of the country for signatures:—

"To the Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled.

"The Petition of the undersigned Medical Practitioners residing in ———

"Humbly sheweth,

"That, in the opinion of your petitioners, the Bill 'for the better government of the medical profession in Great Britain and Ireland,' now before Parliament, is based on principles which are calculated to confer important benefits upon the community.

"Your petitioners therefore humbly beg that these principles may receive the sanction of your honourable House; and your petitioners, as in duty bound, will ever pray," &c.

After a discussion of considerable length, it was

resolved, on the motion of Dr. Webster, seconded by Dr. Hall, "That the delegates still remaining in London, do continue their sittings at such intervals as circumstances may render necessary."

Dr. Webster, in complimentary terms, proposed a vote of thanks to Mr. Carter for his services as secretary of the conference.

Dr. Maunsell seconded the motion, which was carried by acclamation.

*Sixteenth Meeting of Delegates, Exeter Hall,
April 6, 1841.*

Glasgow, Mr. Farr in the chair.

East of Scotland, Professor Sharpey.

British Medical, Mr. Davidson, and Dr. R. D. Thomson, secretary.

South Devon, Mr. Smith.

Mr. Hawes, M.P., and Mr. Ewart, M.P., also attended.

The Secretary announced the formation of a new association at Taunton, and the appointment of Dr. A. B. Granville, F.R.S., as delegate.

A letter was read from Mr. Ceely, stating that his connexion with the conference, as representative of the Provincial Association, was at an end; but that he still continued a firm advocate of reform. His letter, it was agreed, should be entered on the minutes.

Mr. Hawes, M.P., attended the meeting agreeably to the request of the secretary of the conference. He said, he believed that many members of the Government would not oppose the second reading of the Bill; there were some who ought to be urged to attend and to support it. It was especially necessary that the profession should use their energies to influence Government, who might at present oppose an insurmountable obstacle to the proper hearing of the measure; the corporations, it was obvious, would proceed no further than the pressure of the profession compelled them. He, therefore, urged upon the conference the importance of raising a power among themselves equivalent to that of the corporations; until this was effected, the latter would undoubtedly thwart, in a great measure, all proper schemes of improvement. From what he had now heard, however, he was inclined to think that the desirable object would speedily be carried into effect: in the mean time, it was necessary that the subject of medical reform should be brought before the public as much as possible. It was not to be expected that a measure of reform could be carried in one session; but the circumstance of its being brought before the notice of Parliament would pave the way for a favourable issue on a future occasion. The conference having thanked the honourable members for the interest which they had taken on the subject of medical reform, the latter withdrew.

PARLIAMENTARY MEDICAL INTELLIGENCE.

Wednesday, April 28.

Mr. Sergeant Talfourd presented a petition from Reading against the medical arrangements of the Poor Law Bill.

April 29.

The Earl of Rosebery presented a petition from the College of Surgeons of Edinburgh, praying for an extension to Scotland of the Act for the Registration of Births, Marriages, and Deaths.

The Marquis of Lansdowne presented a petition from the Medical Association of Ireland, praying that the medical officers of unions should receive adequate remuneration for their labour, and that the medical charities of Ireland should not be placed under the control of the Poor Law Commissioners.

May 3.

In a conversation, which took place in the House of Commons, on the Criminal Courts' Bill, the Attorney General informed Mr. Wakley, that if the freeholders of Middlesex should conceive his present occupations to be so numerous as to interfere with the proper discharge of his duties as coroner, they might petition for a writ *de cor. elig.*, when an additional coroner would be appointed to share the labours and emoluments of the office.

BOOKS RECEIVED.

Popular Cyclopaedia of Natural Science. Vegetable Physiology. Published by the Society for the Promotion of Popular Instruction. Tanner and Co., London, 1841, 8vo. pp. 294.

The Philosophy of Death; or, a General Medical and Statistical Treatise on the Nature and Causes of Human Mortality. By John Reid. Highley, London, 1841, 8vo., pp. 381.

On the Diseases and Derangements of the Nervous System, in their Primary Forms, and in their Modifications by Age, Sex, Constitution, Hereditary Predisposition, Excess, General Disorder, and Organic Disease. By Marshall Hall, M.D., &c. Bailliere, London, 1841, 8vo., pp. 380.

A Popular Lecture on Disorders and Diseases of the Spine, &c. By Henry C. Roods, M.R.C.S. Bailliere, London, 1841.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, April 30, 1841.—William Copeland, George Guillemard, John Morgan, Francis John Corbould, Thomas Tardrew, Arnold John Burmester, George James Hilbers, William Weld, Robert Gorton Coombe.

Admitted Monday, May 3.—Thomas Baynton, Edward Berney, John Young, Robert Gilling, James Penn Harris, John Whaley, John Duncan, Richard Bealy Sullock, Charles Pope Bates, Thomas Jolliffe Tufnell, John Clayton.

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COURSE

OF

LECTURES ON PHYSIOLOGY AND SURGERY,

DELIVERED AT ST. GEORGE'S HOSPITAL,
BY JOHN HUNTER, F.R.S.

(From the Manuscripts of Dr. Thomas Stue and Mr. Henry
Ramsey.)

LECTURE III

ON THE BLOOD.

GENTLEMEN,—Animal matter exists in two states, the solid and fluid. Out of the latter is the animal body formed, and by it is supported. Unless the blood were, fluid it would be unfit for these purposes. Blood has been hitherto considered as a passive inanimate fluid. Some have considered the spontaneous changes which it undergoes when out of the body—its chemical properties, and the figure of its parts when seen under the microscope. These inquiries are proper enough in their way, but they can never explain its living principle.

Before, however, I explain my opinion of the blood, it may not be improper first to state some facts, from which I may draw conclusions.

I have first endeavoured to show that animal matter differs from common matter in many circumstances; that this animal matter had a principle peculiar to itself, which I call life, and this life is the second step, or process of common matter, viz. animalization the first, vivification the second. And to prove this, I observed that an animal increased and supported by many substances, which at that time have not the properties of animal matter, of course have not the principle called animal life. I observed, too, that it could be supported by substances which were animal matter, but such as have then not the living principle; or, in other words, an animal can be increased or supported on vegetable and dead animal matter. In the next place, it is observed that these substances, before they can increase or support the animal, become first animal matter. And in the fourth place, that the substances should be so prepared, or animalized, as that they do become part of the body, of course are then endowed with the living principle. It is now necessary to trace these changes in the food, till it becomes part of our solids, and observe, as we go along, where it is most probable that life begins.

Blood is not simply a fluid animal matter, it is animal matter particularly arranged, for it differs in every respect from fluid animal matter produced by art.

In vegetable, the first change that takes place before it is rendered blood, is its conversion into animal matter. This change I call animalization. In animal matter it might be supposed that no change was necessary to produce animalization;

but we find this change, whatever it may be, is the same in both, and the process in both is probably similar, for the produce from the digestion of animal matter is as different from common animal matter as anything can be. Were it not so, animal substances rendered fluid by chemical operations, as jellies, broths, &c., would be the same as blood, or answer the same purpose. But the necessity for a total and similar change in animal and vegetable matter from the digestion is evident, because life is to arise out of this change; and it is the first step towards the preparation of the food for vivification. Yet it may be supposed in digestion, the first step with vegetables was simply animalizing them, afterwards making them go through the next change with animal matter, viz. chilification. But this would be supposing digestion and chilification two different operations, which we cannot allow, for it would be supposing two different principles going on in the stomach at the same time, which I should very much doubt.

The second process is vivification, which must take place somewhere, before the blood becomes an active part of the machine. We shall first premise that animalization may take place without vivification; how far this is the case is not easily determined: however, we may say with certainty, that vivification cannot be prior to animalization. Let us first trace animalization of this matter.

Animalization begins in the stomach, and in common language is called digestion, the immediate produce of which is called chyle. These substances animalized into chyle are either vivified in this first operation, or they receive this process afterwards. We have in the whole three changes in the matter, which nourishes our body before it actually becomes part of ourselves.

1. The change of the food to chyle.
2. The change from chyle to common blood.
3. From common blood to the solids of our body.

In the change of food to chyle, we do not see why it may not have received the living principle; for this is such a change as renders blood capable of becoming alive. Yet it may be supposed that this process was reserved for the lungs, where the chyle comes so much in contact with the external air. This air may be imagined to act on it like that on an egg, as moisture and warmth on the seeds of vegetables, giving a power of growth to their particles. But in that case they do not give the principle of life, they only give life its action; that applied to a seed does not give life, it only gives parts their actions.

Blood may still be supposed not to become alive till it be made into a solid, when it becomes part of our body, therefore loses the property of blood, and then its life is indisputable.

The living principle I am apt to believe takes place sooner, which I imagine will appear in the investigations of the properties of the blood, with the many phenomena that attend it in the living body.

I have already observed, that the organization of animal matter was not necessary for life, only for its actions; therefore, fluidity is no objection to the blood being alive. My reasons for supposing the blood to be alive in a fluid state are the following:—

1. It may be observed, that it appears to carry life to every part of the body, for whenever a part or the whole is deprived of fresh blood, it very soon dies. This blood, however, must be such that has undergone some change in the lungs; for if the blood did not undergo this change, it would most probably soon die, therefore would not be capable of keeping up the living power in the other parts. This effect arising from the want of fresh blood being sent to parts is so evident, that it needs no illustration. I may therefore conclude, that it is the only cause and support of life; the nerves having no other part but to produce some of the actions, not life itself, for the nerves themselves die without this living support.

2. We may observe, that while circulating or in useful motion, it is always found in a fluid state. Hence, I think I may be allowed to say, as it is never found in a solid form in the cavity of the blood-vessels, that it has not then the least tendency to become solid,—that such a state is contrary to its nature. This must arise from some principle which is probably in both the blood and vessel. This want of disposition to coagulate while moving in the living vessels, does not arise from the motion; for in many places where the motion is extremely slow, the blood remains fluid. We have instances in this in the veins of the leg, where the crural artery has been tied up, in which case the blood only moves through a few small collateral branches below, and back by the larger veins. Now a small quantity of blood being sent into these larger vessels, must render the motion in them next to stagnation. But while in the living vessels there is any degree of motion, the irritation of imperfection is not given, there is consciousness of its being a useful part, by which is meant that harmony between solids and fluids is kept up. It is curious often to see the small quantity of blood which shall keep up this mutual harmony. In cases where people have been days, or even weeks, in trances, where there is not the least motion in the blood, it has retained its fluidity, because both solids and fluids retained their life, but not their actions. The want of disposition to coagulate in such situations does not arise from any property in the blood, simply as animal matter; for simply as animal matter, whose alterations arise simply out of the compound, (as fermentation,) it could not vary in its effects from circumstances that did not in the least vary the nature of the compound.

I shall observe, that dead animal matter acts on the living body as any other foreign or extraneous matter; therefore the blood being in perfect harmony with the living principles of the solids, when both are in powerful health, is a presumption that the blood is alive.

However, this argument is not absolutely conclusive, for we find in the blood heterogeneous parts which do not destroy this harmony; most probably those heterogeneous bodies are introduced simply as stimulants to the living principle, as extraneous objects are to the sensitive. This harmony of the blood to the solids is more observable in some parts than others. The parts in

which it is with the greatest harmony are the vessels, with which it is in constant contact; this is evident from its retaining its fluidity longer in them without motion, than in any other part of the body, though equally enclosed in living parts.

All the diseases which act on the solids act on the blood, to effect all those spontaneous changes which naturally arise from rest out of the body. So that the blood is as capable of diseased actions as the solids are. If the blood did not change in the diseased state of the solids, it would then lose the natural harmony I have been speaking of. This change is according to the state of the solids, which shows the immediate connexion between the two.

This consent of the blood with the solids is not a diseased alteration in the fluids, but a consent with the diseased disposition of the solids.

On the other hand, the solids are affected by diseases of the blood; I even suspect death in the blood can take place independent of the solids, but the death of the solids will soon follow.

The blood, when at rest, has a disposition to separate into several parts, viz. coagulable lymph, red particles, and serum; the red part being retained in the coagulable matter, and the serum squeezed out in the act of coagulation. This disposition in one of the parts of the blood to coagulate when at rest, from whence the above changes are produced, is more or less according to circumstances.

This property of the blood deserves particular attention, as it throws more light on its nature than any point of view in which it may be considered, it being spontaneous and natural: it is by this change that the solids are formed, which seems to me so important, that I think it almost the only thing necessary to be considered more fully. Indeed, the power of coagulation in the blood throws so much light on the nature of a disease, so far as the blood is concerned, that it is the part only almost that we have recourse to in the examination of the blood after bleeding, when we want to see whether or not the blood is buffy, that is, no more than that there is a disposition for the red globules to sink faster in such blood; or rather, perhaps, that such blood being slower in coagulating, the red globules have time to sink to the bottom, and leave the coagulable lymph at top free from red globules, and that constitutes buff. So that it is owing to this coagulation that we conceive whether the blood is cupped or not, that is, whether it draws altogether, and its edges rise, and then we say it is not only inflammatory blood, but strong, shows great health and strength in the constitution. If, on the other hand, it lies flat in the cup, and makes one even uniform surface, we say this blood is rather loose in its texture, (it may be still buffy and inflammatory,) and shows the powers of the constitution to be weak.

The red globules themselves abstracted, or the red blood abstracted from the others, is hardly considered, as it hardly explains anything. The serum explains also but very little; there may be more of it or less of it than common, but in itself it explains very little.

The power of coagulating in the blood is greatest when out of the circulation and exposed to common air, even more than when extravasated in some cavities in the body; the necessity or use of which is evident, for by this it becomes quicker in

stopping extravasation. A striking instance of this kind happened in the crural artery of a boar. I cut it through, and allowed it to bleed, but before the animal became weak, or at least had the appearance of weakness, the bleeding became less and less, till at last it stopped. On examining the artery, it was found to have a quantity of coagulated blood opposing and surrounding its cut end like a mop, through which no blood could pass.

This power of coagulation, especially when exposed, unites external wounds more readily, and of course preserves the living principle better, and keeps the internal parts from exposure in many wounds, which otherwise would become external; by this means they are united by the first intention.

In all inflammatory dispositions in the solids, whether universal or local, the blood has an increased disposition to separate into its component parts, and the red globules become less uniformly diffused; their attraction to one another becomes stronger, so that the blood, when out of the vessels, soon becomes cloudy or muddy and dusky in its colour, and when spread thin on any surface, it appears mottled, the red blood attracting itself, and forming spots of red. This is so evident in many cases, that it is hardly necessary to wait till the whole coagulates, to form a judgment of it. I think I can say, when blood is coming from the vessels, whether it will be sizy or not.

When the blood has not an inflammatory disposition, the stream has a degree of uniformity and transparency in its appearance. But it is only an eye accustomed to it can make this distinction.

If the inflammatory disposition of the solids is fever, this disposition in the blood is universal. If there is universal inflammatory disposition from some local irritation, the blood is still universally affected. But if the inflammation is local, and the constitution is not affected, the disposition in the blood is not universal. How far there is local inflammatory disposition of the blood, I do not know; but there is great reason, however, to believe it, and the ready union of parts under a state of inflammation seems to prove it. If the blood does become inflamed in passing through an inflamed part, we must suppose it immediately loses that disposition when it meets with parts in perfect health.

These properties, viz. increased disposition to separate, and a disposition to become a firmer solid, always show increased disposition for action in the living principle, and also most probably increased power. It is one of the signs of strength of the living powers, although the materials for action are weak.

The use of this change in the blood is evident, since it is made fitter for uniting parts by this means; and it is from this disposition that the blood sustains its living principle sufficiently long till union takes place. The inflammation is only in consequence of a disposition for union, or rather the disposition for union arises out of the inflammation; unless the stimulus of necessity for coagulation is given by the solids, the extravasated blood will not coagulate, it will only act as an extraneous body, which often happens, where union is unnecessary, improper, or hurtful, as in many extravasations in the cellular membrane.

This disposition to coagulate when out of the vessels, or when retained in them without motion,

till the consciousness of the use of the motion, and of course fluidity is lost, is one of the effects of the life of the blood.

Now, we have no language existing answerable to all my ideas on the animal economy, and to coin words would not answer the purpose, for then I must make a dictionary of my own. I have not a word for those actions which take place in the body, as if it was conscious that such and such things were going to take place. There are actions in the body which come the nearest to consciousness of the mind of any thing that I can conceive, and therefore I make use of the word; but it is in common language among philosophers always applied to the mind.

Coagulation is a species of attraction arising out of this irritation. It may be considered as a species of generation, for it is the first action, or establishment of a power of action within itself, so as to form itself into muscular fibres, the only powers in an animal; and those again with other parts into organs, to act on the materials from which it arose, for its own support.

As a proof of most of the arguments which I have employed respecting the life of the blood, I will relate one case out of many.

A man came to St. George's Hospital, who had a hydrocele, for which he was tapped with a lancet. The water was clear as serum. When the water was evacuated, the testicle to the feel was found to be larger than common. About a month after, the tunica vaginalis became as full as before. The radical cure was now determined on, the tunica vaginalis was slit up its whole length, and the fluid, which was now bloody, was evacuated; the testicle being exposed was found larger than common, and was extracted. On the body of the testicle, and nearly in the direction of its long axis, and opposite to the orifice in the sac made by the lancet, when the water was first evacuated, lay a coagulum of blood, dark in colour, (almost like a leech when that animal is shortened,) about two inches long, and of the thickness of a common little finger. In the angle between the epididymis and the body of the testicle lay another coagulum, small in some places, adhering to the epididymis, at other parts loose, the body only attached at one end to the coagulum. The adhesion of the large coagulum to the body of the testicle was firm, although it admitted of a separation which was made at one end; when separated, fibres were plainly seen running from the testicle to the coagulum. The adhesion of the small coagulum in many places was still firmer all over the surface of the tunica vaginalis, where were a great many vessels full of blood, and in many parts coagula of blood, like extravasation. In this state I had a drawing made of it, and a small part magnified to show the vessels, and the dots of extravasation as they then appeared. By being put into water, all these vessels and dots disappeared, and it became white. I then injected the testicle by the spermatic artery, which succeeded extremely well. On examining the parts, I observed the following appearances:—The surface of the testicle and tunica vaginalis resumed the first appearance above described, only with this difference, that the injection was of a lighter red than the blood to the eye, and much more so to a small magnifier.

The vessels on the surface were very distinct, and the dots where the extravasation of injection

was as if there had been extravasation of blood. The coagulable lymph on the tunica vaginalis now became vascular. The surface of the adhesion of the large coagulum for about 1-20th part of an inch was injected, and extremely full of distinct vessels. The smaller coagulum was injected in many places through and through its whole substance, in the other only for a little way. On the surface of adhesion of the detached piece, where it only hung by a neck, it had vessels continued along that neck a little way.

If it should be asked how came those coagula there? the answer is, the blood from the wound made by the lancet in the tunica vaginalis in the first operation passing into its cavity, there coagulated on the testicle, which was directly opposite to the wound; and a small quantity of the blood which got down to the chink between the testicle and epididymis had coagulated there also. That this is the most probable way of accounting for it, I think is strengthened by another case, where the tunica vaginalis was found adhering to the testicle, when performing the radical cure, at the very part where before he had been tapped. In half a year, probably, this coagulum would have become wholly vascular, and probably in a little longer time, (it is immaterial the precise length of time,) the whole have been taken away, that is, the whole would have been vascular, would have had absorbents, and the absorbents, as a useless part, would have taken it all up into the constitution.

The tunica vaginalis filling so soon again in the man at St. George's, was the reason perhaps why the tunica vaginalis did not adhere to the coagulum on the other side, so as to produce union between the two.

Quere, for what purpose did this coagulum become vascular, for no visible purpose could be answered by it, as absorption, we may suppose, might have taken place as easily in a coagulum as in the cellular membrane? But perhaps absorption not taking place here was the cause of the collection of water at first, and adhesive inflammation evidently had taken place here, (because it was vascular,) that it might be able to absorb itself.

Thus, then, the materials of which the blood is composed, are joined with the living principle, and properly disposed; it is capable, when extravasated, as it were spontaneously, to form itself into parts fit for motion, and for performing all the offices of any part of the living whole, successively receiving the stimulus of nature from the surrounding parts, forming itself into similar parts, as into bone, cartilage, &c.

In many diseases not inflammatory, viz. those called putrid, where the solids have a tendency to fall into the change natural to animal matter deprived of its preserving principle, the blood has no disposition to coagulate, nor the solids power of raising inflammation, both having taken on the same disposition. In such a disease, both the principle and power are diminished, so that life is hardly able to preserve the matter from falling into its natural changes, though it has still a disposition to keep the vital parts or body moving.

Many circumstances in death, besides putrid diseases, produce this effect on the blood, an instance of which was met with in a gentleman who, being in perfect health, died instantaneously from passion, it being so violent as to produce death in

every part at once, and his blood did not coagulate.

A woman who was very healthy, was taken in labour of her fourth child: as the child was coming into the world, the woman died almost instantly. On opening the body the following day, there appeared no cause of death whatever, every part being natural and sound, but the blood was in a fluid state, nor did it coagulate on being exposed.

A soldier, (a healthy young man,) confined for desertion, received a blow on the pit of the stomach from one of his comrades, from which he dropped down, and died almost immediately. On opening the body, no preternatural appearances were observed; the blood was in a perfect fluid state, and did not coagulate when taken out of the vessels and exposed a considerable time.

Animals struck dead by lightning have not their blood coagulated, nor their muscles contracted, after death; both blood and muscles being killed at once.

There are other instances. Two deer were hunted to death, in which case they acted till the very power of action ceased, and of course death ensued. On opening them the blood was fluid, only a little thickened, and the muscles were not rigid, as we find them when they are capable of acting from the stimulus of death. In both cases the lives of the solids and blood were deprived at once.

These observations of animals hunted to death being tenderer than those killed in perfect health and at rest, are not uncommon.

An animal hunted till it can act hardly any more, its muscles do not contract after death, nor does the blood coagulate.

There is a natural action of the living body which destroys the life of the blood in the act of extravasation: this is the menses in women. If those discharges are natural and healthy, the blood does not coagulate; but on the other hand, if the extravasation is not a healthy one, the blood coagulates as it is extravasated, and comes away in clots. This, perhaps, is best demonstrated in those cases where the hymen is imperforated, and the menses accumulated.

This circumstance leads us to understand something of the menses; for depend upon it, if a woman has her menses come away in clots, it is not a natural, but a diseased, discharge.

To prove that the blood and the solids correspond very much in their actions of death, we may generally only observe, that when an animal dies in the common way, it is by the vital actions being first destroyed; but life still exists, for the muscles contract and the blood coagulates. But if we destroy life instantaneously, or along with the vital actions, then the muscles will not act, and the blood will remain fluid.

Those changes of the blood which appear spontaneous, are not really so; they arise from irritation in the blood itself, as much as any actions in the solids. This irritability produces the natural action of the blood, which produces these effects, and all the properties we see the blood possesses in either a healthy or diseased state. We cannot think that the blood has a power of communicating sensation, as it cannot have nerves; its living powers, therefore, are those of simple life, and similar in that respect to the solids of many animals.

As sensation is a principle superadded, intended

to convey fixed intelligence, it is unnecessary that a moving part should have it; but when it becomes a solid and fixed part, it then opens communication with the mind.

Thus far I have endeavoured to show that blood is as much endowed with life as the solids are; and the only difference between the two is, that the solids have construction called organization, producing considerable visible effects, while the blood has not this construction, therefore does not produce these visible effects. This theory will appear more evident in treating of the diseases of the animal body.

ON THE

EFFICACY OF OXIDE OF ZINC IN LARYNGISMUS STRIDULUS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—If you deem the following case of Laryngismus Stridulus worthy of a column in your valuable journal, I shall feel obliged for its insertion, as from the severity of the case, and the method of treatment that was persevered in, it may prove of some interest to your readers.

Your obedient servant,

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9, Alfred Place, Bedford Square, May, 1841.

A child, aged ten months, brought up by hand, and whose dental development proceeded but slowly, having but two teeth at the time of this report, but in other respects of good constitution, had enjoyed good health from her birth, with the exception of an attack of dysentery, which lasted about eight days, and from which she perfectly recovered; was reported by her nurse to suffer from a slight cough, accompanied with a peculiar whooping noise, which took place only during the night, and to be in the habit of starting up suddenly with these attacks from sleep, as if alarmed; but the cough did not always accompany them; she would struggle for breath as if respiration was obstructed, and, after repeated efforts, would commence to breathe with long and stridulous inspiration; she would occasionally get them during the day, if irritated. The appetite was good; bowels regular, but the dejections were of a dirty white colour; no vomiting observed by me during the day; there was nothing that particularly called attention to the child, so she continued in this state for about ten days, until the evening of the 2nd of January, when I had an opportunity for the first time of observing one of these fits of suffocation; her breathing was suddenly arrested, without previous coughing, the face became of a purplish hue, and, after the lapse of some twenty seconds, the long whooping inspirations came on, and expiration was distinctly heard, occasionally accompanied with a marked change in the cry; this state lasted for about the same period of time, when respiration was performed as usual, but somewhat accelerated; the expression of the child's face was now much altered, and in some short time afterwards she coughed rather violently, with an evident super-secretion of mucus: on percussion there was no

appreciable difference on either side of thorax, and though minutely ausculted, the respiratory murmur was audible everywhere, unaccompanied with r le; there was no inflammation, vascular redness, or aphthous concretion in the throat or fauces, but there was observed a congenital malformation of the palate, for the uvula and palatum molle were absent, and a fissure of a triangular shape extended between the bones of the palate for about four lines; heat of surface natural, pulse rather quick. I gave her an emetic, consisting of tartar emetic one-eighth grain, with ten grains of ipecacuanha; it acted speedily and with evident relief; she also took the following mixture.

Castor oil, four drachms; gum mucilage, one oz.; laurel water, one drachm; tincture of conium, one drachm; fennel water, one oz. A teaspoonful every third hour.

On the two following days was much improved, as there was no return of the dyspnoea or cough, but on the morning of the 5th she was again suddenly seized, whilst in the act of playing, with another attack, as if the larynx had been tightly compressed; respiration ceased for about one minute, when the long stridulous inspirations were again heard, and forcible hurried expirations; the face became swollen, of a livid purplish hue, particularly, the lips and inside of the mouth; the eyes became prominent, with a very evident divergent strabismus of the left one; the hands and arms were rigidly extended: the lower extremities were in the same rigid state; the pulse quick and small; this state was followed by a violent fit of crying, which terminated in sleep, which lasted about three hours, and during sleep she started up with several less severe attacks, but on awaking she had one of longer duration; I then observed that the larynx was forcibly drawn lower in the neck than usual; the number of respirations was twenty-eight; no difficulty of swallowing; voice little changed; she did not evince pain on my pressing the larynx; the alvine dejections were still without a trace of biliary secretion; the two upper incisors were on the point of appearing; I lanced the gums, and ordered the following powders:

Calomel, ten grains; antimonial powder, two grains; divide into eight papers; one every second hour. Milk diet.

The paroxysms now increased, and in the evening I counted ten attacks which she had during the day; bowels relieved from medicine twice, bringing away a large quantity of mucus, tinged with green matter. The emetic was repeated, but she passed a bad night; started from sleep with the fits twelve times; she did not pass urine until late in the morning, and then in small quantity; warm sponges to the pubes relieved the distended bladder; strabismus continues during the fits. Continued the powders, with the addition of a small quantity of extract of belladonna, gradually increased; friction with ung. hydrargyri on the right hypochondrium; she refuses her food, and is very irritable; the countenance is exceedingly pallid, with dull expression; features much sharpened. She continued in this state, gradually getting worse, until the 14th, when, on attempting to administer a small dose of ol. ricini, she was suddenly seized with a most violent fit of suffocation, which lasted about five minutes, accompanied with the greatest distortion of countenance and general convulsive movements. Having quickly pro-

vided a warm-bath, she was plunged into it, and by compressing the chest with the hands placed on the sternum and spine, so as to induce a fresh supply of air to the lungs, I found that sensation and respiration slowly returned; I kept her in the bath twenty minutes, during which time her bowels were acted on; the excretions still had the same unhealthy appearance. After this attack she lay in the nurse's arms in a comatose state for nearly eight hours, though occasionally starting up with fits; seven leeches were applied to the temples; they bled profusely, and relieved the hyperemia of the cerebral vessels; she then got a brisk purgative of mercury and chalk, six grains; scammony, one and a half grain. Finding the paroxysms to have now increased to as many as twenty in the day and thirty at night, I called in my friend Dr. Hennis Green to see her.

Dr. Green advised that the gums should be freely lanced, and that every effort should be made to correct the state of the alvine secretions by strict attention to diet and by purgatives. It was also agreed that the oxide of zinc should be administered in gradually-increased doses. Four leeches were applied to the temples; the warm-bath was ordered to be employed every second day, and the following powders, which were commenced on the 18th: Oxide of zinc, one-sixth of a grain; compound scammony powder, one-half a grain; mercury and chalk, one grain. One powder to be taken every second hour.

19. Fits increased at night, twenty-five; stools still without biliary secretion.

22. Fits in the day, twenty; at night, twenty-nine. Zinc increased to one-quarter grain doses. She continued in this state without much improvement until the 28th, when the zinc was given in grain doses every second hour; bowels still deranged; considerably emaciated; character of fits as usual, but on the whole not so severe or frequent; sleeps a great deal, and always awakes with a fit; in day, fourteen; at night, eighteen.

30. Fits in day, ten; at night, eighteen; state of bowels not improved; gums again lanced; pulse small and quick; number of respirations, twenty-two. Takes beef-tea and biscuit powder—a warm-bath.

February 2. Fits in day, eight; at night, fourteen. Zinc now increased to two-grain doses every third hour; bowels a little improved; appetite better; in consequence of a severer fit than usual, had six leeches to temples to relieve congestion. During the first week of February the fits decreased a little, at the same time the child's health began to show some amendment; fits in day, eight; at night, nine.

9. Zinc increased to three grains every fourth hour; colour of stools nearly natural—gums lanced; fits in day, six; at night, seven; strabismus and rigidity continue during the fit. She continued in this progressive state, with little to remark, except a slight soreness of the mouth from the mercury, which was immediately suspended; the paroxysms are less frequent and severe, but the whooping or stridulous inspirations are more prolonged, and the suffocation is not by any means so alarming.

22. Fits in the day, four; at night, six; appetite and state of bowels improved; has got much better.

28. Improving, although the fits are as frequent

as at last report; zinc increased to three and a half grains every fourth hour.

March 10. Treatment continued; had no fit last night; stools perfectly healthy; appetite improved; expression of countenance natural.

22. Perfectly recovered, as there has not been a single return of the fits. She was now sent to the country, where her strength has perfectly recruited.

REMARKS.

Opinions have been much divided as to the nature of this affection, which has been variously denominated by the terms *laryngismus stridulus*, croup-like convulsion, the crowing disease, *spasm* of the glottis, thymic asthma, &c.; but if any other evidence were wanting, the above case proves that it is a mere convulsive disorder, not depending on any organic lesion of the brain or spinal marrow, but excited by some irritation of the sentient extremities of the nerves, or, in some instances, perhaps, kept up by mere habit. The little patient, whose case I have just related, dwelt in the same house with, and was anxiously watched by me; and close observation soon led us to detect the approach of the fit several seconds, or even minutes, before it actually became developed. In such cases we often prevented the access of the fit, by taking the infant gently up, and diverting its attention by the exhibition of some toy, &c. Were not the fit of crowing merely convulsive, in the same sense that hysteria or chorea is, it would be difficult to understand how its occurrence could be prevented, by merely diverting the attention of the little patient.

The chief exciting causes of *laryngismus stridulus* are unquestionably the irritations caused by the teeth during dentition, &c.; by improper food, or the influence of unwholesome air, &c. The latter, however, does not seem to act so frequently as writers assert, because this disease is extremely rare amongst the children of the poor in France; and in this country, from all that I have heard, it appears to prevail as much amongst the offspring of persons in easy circumstances as amongst the children of the destitute, and those who inhabit the crowded lanes and alleys of this great metropolis. In the case of my little patient, it is difficult to say whether dentition or derangement of the alimentary functions bore the greater share, as exciting causes of the malady. Although there was no redness or apparent tumefaction of the gums at any point, the infant cut two teeth towards the termination of the disease; the gums had been scarified once or twice, as a matter of precaution, and this operation was repeated several times during the course of the disease, according to Dr. Green's advice, but it did not seem to affect, in any well-marked manner, either the frequency or the duration of the fits. The comatose state in which this child frequently was plunged, the strabismus, tetanic rigidity of the body, &c., might to some persons seem to favour the idea of the cerebral origin of this complaint, a theory advocated by the late Dr. John Clarke; but they evidently depended on congestion of the brain produced by the violence of the fits, amounting almost to asphyxia, for they bore a close relation to the severity and length of the fits of crowing, did not exist at the commencement when these were mild, and disappeared when they were again moderated.

One of the most remarkable symptoms which presented themselves during the course of this severe disease, was the total suspension of the biliary secretion. Mercury was given with the hope of exciting a due secretion of bile, but had little effect, and the only purgative which seemed to produce anything like a healthy action of the bowels was scammony. It is, however, worthy of remark, that even when the stools were tinged with a due proportion of bile, the fits continued to be almost as frequent, and as protracted as before. It was then that Dr. Green suggested the use of oxide of zinc, from his experience of its efficacy in some of the convulsive disorders of children, and by a persevering use of this remedy we were enabled to conduct to a happy termination a case which had been the source of unceasing anxiety to the friends of our little patient, and to her medical attendants.

CONTRIBUTIONS TO THE PATHOLOGY OF CHILDREN.

By P. HENNIS GREEN, M.B.

LECTURE ON DISEASES OF CHILDREN AT THE HUNTERIAN SCHOOL OF MEDICINE.

CHRONIC HYDROCEPHALUS.

CASE I.—*Child nineteen months of age—measles—convulsions—gradual enlargement of the head—amaurosis—paralysis—tubercles in various parts of the brain—a quart of fluid in the ventricles.*

EUGENE THIALBANT, 19 months of age, was admitted on the 6th of December, 1833.

The head of this child was perfectly well formed at birth. For three months he was fed by the spoon, and then sent to nurse, where he remained until the age of 12 months. At this period he had the measles, and on the disappearance of the eruption was seized with convulsions, which recurred several times. He also continued to cough. After the lapse of a month, the head began to increase in volume, and the child was unable to walk any more; the face was alternately flushed and pale, and he was occasionally feverish. When the child was 18 months old, the head was so large, that he could no longer sit upright, and the power of vision was totally lost.

December 8. The head measures 23 inches from the most prominent part of the forehead to the occipital protuberance, and 26 inches from the chin round the apex of the crown. He is unable to support the head in any position; the fontanelles open; vision lost; pupils dilated and immovable; only six teeth; abdomen very tumid; bowels always constipated; paralysis of the lower extremities; upper extremities sensitive, and capable of executing some movements; pulse small, of natural frequency; respiration free; slight cough.

During the first fortnight no active treatment was employed, nor did any change take place in the symptoms. On the 27th, the child was seized with fever, accompanied by frequent cough and dyspnoea.

28. Cough extremely frequent without expectoration; extreme difficulty of respiration; pulse 150; respiration 54; skin very warm; abdomen free from pain; no diarrhoea or vomiting; lips dry and dirty; some aphthae on the lips and tongue.

22. Same cough and dyspnoea; bowels confined.

For the next two days the child continued to cough a good deal, but the general symptoms remained unchanged. On the 2nd of January the cough became more severe, and the dyspnoea more distressing; nevertheless, the following was the prescription:—Mallows, gum-julep, bouillon. This treatment was little calculated to check the thoracic affection, and the child died in a fit of suffocation on the 6th of January.

Body examined twenty-two hours after death.

There was no fluid in the great cavity of the arachnoid; membranes on the upper surface of the brain healthy; the cortical and medullary substances are also healthy, but the latter is almost reduced to a layer, by the distension of the lateral ventricles. These contain about a quart of clear serum. The thalami, and corpora striata are not altered in colour or consistency; at the posterior part of the left hemisphere, and on the surface, there is a large tubercle, which adheres to the dura mater; the surrounding nervous tissue is slightly softened; round this tubercle there are seven or eight smaller ones, some of them softened in the centre; on the inner side of the middle lobe of this hemisphere there are two other tubercles of the size of beans, and a third one in the anterior lobe. There are four tubercles of different sizes in the middle and posterior lobes of the right hemisphere. Finally, a tubercle was found in the corpus striatum and thalamus opticus of both hemispheres. In the cerebellum there were five tubercles: one on the median line, above; a second on the right lobe; a third and fourth on its lower edge; a fifth on the left lobe, softened in the centre; pons varolii and spinal marrow healthy.

Chest.—Lungs crowded with miliary tubercles and tubercular deposits, with inflammation of the pulmonary tissue in different parts. Bronchial glands tuberculated. Heart and pericardium healthy.

Abdomen.—The viscera contained in this cavity are all healthy. No tubercular matter in the mesenteric glands.

CASE II.—*Two years of age—convulsions—enlargement of head—paralysis—constipation—coma—a pint and half of serum in the ventricles.*

ROSE ROUSSEAU, two years of age, admitted July 21, 1834. The mother of this child has been subject to hysterical attacks, and has lost seven children from convulsions. The subject of the present case seemed to enjoy good health up to the age of fifteen months, when she was seized, without any known cause, with convulsions, which have frequently returned since then. Immediately after the first attack of convulsions, the head began to enlarge, and has now attained a considerable size; it measures twelve inches and three quarters from one auditory foramen to the other, (over the crown of the head,) and sixteen inches and a half from the most prominent point of the forehead to the occipital protuberance.

22. Both fontanelles are now widely open, and the child lies constantly on its back, in a state of stupor, being unable to support the head in an erect position: the limbs and muscles of the face

are occasionally convulsed; the arms and legs paralysed; the sensibility of the skin, however, remains; she squints with both eyes; pupils moderately dilated; sight not totally lost; tongue clean and moist; bowels habitually constipated, but has not been subject to chronic vomiting; swallows well; skin cool; pulse 112, small, but regular; respirations, 28.

To take calomel, 4 grains, powder of digitalis, 3 grains, in the day.

The calomel produced two or three fluid evacuations daily, and was continued without any benefit. The child gradually became more comatose, and sank on the 26th at 5 P.M., without convulsions or any struggle.

Body examined thirty-six hours after death.

Head.—The bones of the cranium are very thin and soft; dura mater, arachnoid, and pia mater, of the upper surface of the brain, healthy; the convolutions of brain are spread out and flattened by a collection of clear serum in the ventricles, which amounts to about a pint and a half; the foramen of Munro is sufficiently large to admit the middle finger; the cortical substance of the hemispheres does not seem to be much altered, but the medullary substance is reduced to a mere layer, scarcely half a line thick; the corpora striata and optic thalami are much flattened, but not changed in consistency or colour. The rest of the brain is quite healthy.

The viscera contained in the thoracic and abdominal cavities were free from tubercular deposit, and appeared to be remarkably healthy; but there was a good deal of venous congestion in the liver, spleen, and kidneys.

CASE III.—*Twenty-seven months of age—amaurosis—paralysis—rigidity of the muscles—coma—a pint of serum in the ventricles.*

AUGUSTUS PREVOT, twenty-seven months of age, was admitted into hospital on the 13th of February, 1834. Was born at the full period of gestation, but after a difficult labour, which lasted three days; at birth his parents remarked that the head was very large. At the age of eighteen months he began to walk about, took his food without any assistance, and was able to articulate a few words. He has not been subject to any convulsive attacks. Since the last eight months his head has gradually enlarged, and he has ceased to speak; the power of vision, also, gradually diminished, and was at length completely lost, as was also the power of moving the lower extremities, which soon dwindled away. During the first few days little change took place in the condition of the patient, but on the 17th some symptoms of cerebral excitement manifested themselves: the face was alternately pale and flushed; the eye-balls constantly affected with convulsive movements, but the child lay on its back in bed without stirring; pupils dilated, and insensible to the light; no pulse to be felt at the wrist, but the heart beats irregularly, 100 times in the minute; respiration, 24; the upper and lower extremities contracted, and scarcely sensible when pinched; muscles of jaw spasmodically contracted; abdomen tumid; no evacuation for the last four days; no cough; the child drinks well, and is still able to take a little food.

18. The limbs still remain rigid and contracted;

pulse (at the crural artery) 100; skin cool; cries occasionally in a low, feeble tone. The dimensions of the head were now ascertained to be as follows:—

Circumference of the head, 24 inches, 4 lines; biparietal diameter, 8 inches, 3 lines; antero-posterior ditto, 8 inches, 1 line; from the chin to the occiput, 9 inches, 2 lines; from one auditory foramen to the other, 4½ inches.

On the following days, that is, from the 18th to the 22d, the rigidity of the muscles continued almost constantly; the child lay in a stupid state, emitting from time to time a plaintive groan; on the 22d the power of swallowing was nearly lost, the face became of a light purple colour, the respiration impeded, and he died on the morning of the 23d, at 4 A.M. The bowels had not been once opened since his admission.

On examination after death more than a pint of clear serum was found in the lateral ventricles, which were greatly distended, their parietes being reduced to a few lines, but the cerebral substance was not softened; the anfractuosities were almost completely effaced; the fourth ventricle was also much dilated; the thalami, tubercula quadrigemina and pons varolii were atrophied, and of a pale colour. The cerebellum was pale and flaccid interiorly. The membranes of the brain did not present any morbid change whatever. The spinal marrow was healthy, and no fluid was found in the vertebral canal.

In the chest there was some adhesion between the lungs and walls of the thorax, and some traces of inflammation in the superior lobe of the right lung: the rest of the pulmonary tissue was free from disease, and did not contain any tubercular matter. The pericardium was united to several points of the surface of the heart, by ancient adhesions, but there was no fluid in its cavity. The abdominal viscera did not present any change worthy of notice.

CASE IV.—*Seven years of age—enlargement of head—loss of intellect—paralysis of lower extremities—two quarts of fluid in the ventricles.*

ADELAIDE VIGNERON, seven years of age, admitted on the 28th December, 1833. When born, the child's head presented a natural size, and the labour was short. She appeared to enjoy good health up to six months of age, when she was seized with an acute attack, resembling brain fever, which was successfully combated by the application of leeches along the sagittal suture, but the head began to enlarge soon afterwards, and continued to increase in size up to the age of five years. It now measures in circumference two feet; from one auditory foramen to the other, (over the crown,) fifteen inches, two lines; from the root of the nose to the occipital protuberance, fourteen inches, nine lines; but the fontanelles are now closed. As the head became enlarged the intellectual faculties diminished, and were soon nearly lost; there was little or no memory, but she recollected her name, and could recognize her parents; laughed and cried frequently without any motive; has never been able to walk; the nutritive functions were never much disturbed; the appetite continued good, and the face, even now, appears to be fat, but the lower extremities are very small and atrophied.

Present state.—The child is nearly reduced to a

state of idiocy, being merely able to articulate a few monosyllables; the sight is clear, and the hearing preserved; lower limbs paralysed; upper limbs capable of executing a few limited movements; the sensibility of the skin is much diminished on both sides of the body; she passes her evacuations under her during the night, but is able to retain them by day; tongue clean; abdomen free from pain; pulse natural.

The child continued in this state, without any change worthy of notice, for a fortnight, and was attacked on the 12th of January, 1834, with the premonitory symptoms of measles; she was depressed and anxious, with hot skin, watery eyes, frequent dry cough, and considerable oppression of the breathing; pulse 124.

Six leeches were applied over the sternum.

On the 13th the eruption appeared, particularly on the thighs; the cough, with dyspnoea, continued; skin hot; pulse 124; eyes much injected; no diarrhoea or vomiting; no convulsive movements; does not answer a single syllable when spoken to; limbs paralysed as before, without contracture.

A mixture, containing the white oxide of antimony, was administered.

On the 14th the eruption had completely disappeared, and the pulmonary symptoms were aggravated: pulse excessively quick and weak; skin hot; face of a purple colour; difficulty of breathing very great, with rattle in the trachea, and asphyxia appearing imminent. Two large blisters were placed on the inside of the thighs, and the antimonial mixture continued.

On the 15th and 16th all the symptoms were aggravated; there was some desquamation of the epidermis on the face; pulse not to be counted from its quickness; respiration interrupted, quick, and extremely difficult; tongue dry and red; face occasionally flushed; some convulsive movements of the lips; pupils moderately dilated; sensibility of the skin dull. The dyspnoea now rapidly increased, and the child died in a state of asphyxia on the morning of the 17th.

Body examined twenty hours after death.

Head.—There is no effusion into the great cavity of the arachnoid, but the lateral ventricles, which are greatly distended, contain about two quarts of clear serum; the foramen of Munro presents the size of a sixpenny piece; the entrance to the aqueduct of Sylvius is large enough to admit the little finger. The floor of the ventricles presents a normal appearance, the nervous substance being firm, but the hemispheres above the ventricles are reduced to a thin layer of nervous matter, not more than two lines and a half in diameter; hence the convolutions are almost completely unfolded, and the anfractuosities are reduced to superficial lines; the membranes which line the superior surface of the brain are perfectly healthy, and the pia mater is but moderately injected; at the base of the brain no change of structure has taken place. With the exception of inflammation of both lungs, at their lower part, the organs contained in the thoracic and abdominal cavities were perfectly healthy.

In the next number of the Provincial Journal, I shall offer some remarks on the preceding cases,

and on that peculiar form of chronic hydrocephalus which is developed some time after the period of birth.

CASE OF SPASMODIC WRY-NECK

CURED BY OPERATION.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—In his excellent dictionary, Professor Cooper, alluding to the case of a gentleman who was afflicted with wry-neck, complicated with a constant tremulous motion of the head, and great weakness and unsteadiness of the upper extremities, makes the remark, that "Here, it is manifest, the disorder was not restricted to any particular muscle, and consequently that an operation could have afforded no relief."* The following case would seem to prove that such an inference is not unexceptionable.

Thomas Lees, æt. 60, for thirty years has been subject to epilepsy, an attack generally occurring once a fortnight. The fits are of short duration, and leave him capable of continuing his employment. He is subject to occasional headache and mazziness, but his intellect appears to have suffered no impairment. His occupation, whilst he could follow it, was that of sorting the different threads for the loom, technically called "twisting-in;" as it is requisite, in doing this, to keep the different coloured threads in view, the head has to be perpetually moving from one side to the other. About eight years since, he first noticed a slight impediment in the rotation of his head towards the right, whilst it was twitched convulsively when he willed its direction towards the left side. The spasmodic action gradually increased, until the patient found himself unable to retain the head in a straight position for more than a few moments.

April 3, 1841. At the present time, his chin is in a line with the left shoulder, and the left side of the head considerably depressed. By a voluntary effort, he can bring the head round, but during the few moments he is able to retain it in its natural direction, it is unsteady, vibrating, as it were, until it returns to its abnormal position with a jerk. From the efforts of the patient, whenever his attention is excited, arises a succession of these spasmodic jerks. On the left side of the neck, the integuments are loose and wrinkled, and the sterno-mastoid muscle small and flabby; the trapezius also appears attenuated. On the right side the skin is evenly expanded, and the sterno-mastoideus prominent and tense, but not unduly developed as to size.

An incision of an inch and half in length was made obliquely across the sterno-mastoideus of the right side, at the distance of about three inches from its sterno-clavicular attachment. By this, the sheath of the muscle and a vein of moderate size running close to, and parallel with, its inner margin, were exposed. The vein being hooked aside, a small opening was made in the sheath, and a director passed beneath the inner edge of the muscle. The muscular fibres were divided upon the director seriatim, and the wound was closed by

means of a suture and adhesive straps. Three or four applications of the sponge sufficed to absorb the small quantity of blood that oozed out during the operation. No material amendment resulted immediately, but on the third day after the operation there was a marked improvement evinced by the length of time during which he could hold the head steadily in a straight position. There was now a slight erythematous blush about the lower edge of the strips of plaster, which, as it disappeared on removal of these, was attributable to the constriction they occasioned. The wound was healed in a fortnight, no effusion of blood from the cut extremities of the muscle, forming a swelling at the seat of incision, having occurred.

May 8. The head is now held steadily in the straight position, but the left side is still rather depressed, though not nearly to the same extent as before the operation. The progress of amendment has been gradual, but perceptible from day to day. No mechanical means for restoring the head to its proper position have been employed.

The above differs from ordinary cases of wry-neck. In the majority of such cases, the sterno-mastoideus is found contracted, hard, and inextensible, on the side towards which the face is directed, and the faulty position is fixed. If relieved by operation, division of the sterno-mastoideus of the same side has generally been resorted to.*

The proximate cause of the affection in the instance I have related, I believe to consist in partial loss of function of the spinal accessory nerve of the left side, causing diminished contractile power—incomplete paralysis—of the muscles which it supplies with motor energy, and thus destroying the equal balance of muscular power which is necessary to preserve the head in a straight position.

Conceiving, provided no organic cause now existed in the brain—which was presumable from the loss of power not being complete, that, by depriving their antagonists of their unequal force, the faulty muscles might gradually regain their tone, I was induced to perform the operation, and the more readily as no injury was likely to ensue in case of failure, and as the man had been more or less for several years under varied medical treatment without benefit. The man has only had one epileptic fit, and that a very slight one, since the operation. Without attaching importance to what may be merely accidental, it is not unlikely that a constantly recurring spasmodic affection of a few muscles, by keeping up morbid sensibility, may tend to call into action, more frequently than would otherwise happen, that peculiar functional derangement of the nervous system on which the epileptic paroxysm probably depends.†

My reasons for considering the left spinal accessory nerve to have been in fault, are, that the left sterno-mastoideus and trapezius, to which this nerve is distributed, were manifestly weaker than the same muscles on the right side, whilst there existed no unnatural growth, rigidity of fibre, or contraction of the integument, to account for the mal-position of the head. The natural uncombined action of the sterno-mastoideus, from the

obliquity of its fibres, directs the chin towards the opposite side. The left sterno-mastoid being unable, from diminished power, to antagonize its fellow of the opposite side, would permit the right sterno-mastoideus to direct the chin towards the left shoulder; the left splenius capitis being unimpaired, and naturally, to a certain extent, the antagonist of the sterno-mastoid, both muscles converging from different directions towards the mastoid process, would draw the head still more round, and, by depressing the mastoid process, approximate the left side of the head to the left shoulder. The left trapezius being weakened, those fibres of the corresponding muscle of the right side, which pass from the occiput to the clavicle and acromion process would, by drawing the occiput rather towards the right, assist in directing the chin to the opposite point.

To have practised an old operation, which Dieffenbach calls obsolete, in preference to the subcutaneous method now so much in vogue for the section of tendons, may appear to argue ignorance or inattention. I was influenced by the following considerations: from the sex of the patient, a scar on the neck was no consideration, and there seemed to be these advantages from making a cutaneous incision rather than a mere puncture:

1st. Every fibre of muscle may thus be completely divided without the slightest risk of injury, which, from the proximity of the carotid sheath, might be inflicted by the subcutaneous cutting necessary to effect the same object.

2ndly. The posterior part of the sheath of the muscle, consisting of a layer of cervical fascia closing in the deep cellular tissue, need not be injured at all; whilst it might or might not escape by the other mode.

3rdly. The common situation of a vein along the inner margin of the muscle exposes it to danger, if not seen and held aside; and though its division might not be of serious consequence, it would probably infiltrate the cellular tissue with blood, and perhaps occasion a thrombus-like swelling, better avoided.

I remain, Gentlemen,

Your obedient servant,

C. RADCLIFFE HALL.

Manchester, May 10, 1841.

BELLADONNA IN CASES OF ILEUS.

M. BECKER has employed an injection of belladonna with the best effects in a case of ileus. A woman, forty-eight years of age, was seized, without any apparent cause, with constipation and vomiting; the ejected matter became gradually more foul, and at length fecal matter was thrown up; this state had continued for five days, when M. Becker ordered a lavement, containing four scruples of the belladonna root. The pain of the abdomen, vomiting, &c., soon ceased, and in half an hour the woman passed a stool, with a good deal of blood in it. No narcotic effects were produced by the remedy.—*Gaz. Med.*

* Syme, *Edin Med. Journal*, 1833. Guern, *Gazette Medicale*. Dieffenbach, *Lancet*, 1838.

† Vide a paper by Dr. Babington. *Guy's Hospital Reports* for April 1841.

TABULAR ANALYSIS OF THE SYMPTOMS OBSERVED BY M. LOUIS,

IN 134 CASES OF

THE CONTINUED FEVER OF PARIS,

(Affection Typhoïde.)

By W. H. WALSH, M.D., &c.

TABULAR VIEW OF THE SYMPTOMS IN 134 CASES OF THE "TYPHOID AFFECTION."

(Continued from page 108.)

Symp- toms.	Disease.	Frequency	Period of origin.	Degree.	Duration.	Seat or character.
DEATHS.	Fatal typhoid fever.	30 20	20 In the middle, or towards the close of the disease.	Extreme in three cases.		Increasing gradu- ally.
	Severe typhoid fever.	45 33	33 2 1st day 31 8th to 20th	Extreme in seve- ral cases.	33 1 or 2 days in some, 4 to 20 in others.	Gradually increas- ed, then dimin- ished; in several subjects alterna- tions of intensity and diminution.
	Mild typhoid fever.	24 5	5 1 1st day	Generally slight.	5 1 lasted 20 days.	
LENTICULAR PINK MACULE.	Fatal typhoid fever.	36 26	In all probability from the 6th to the 9th day in half the cases.	26 Few in number in 18 cases.	Successive develop- ments of eruption for 3, 4, or more days; sometimes dis- appeared in two days.	When few in num- ber, seated on ab- domen and chest; when numerous, on limbs also; twice on the back in the only in- stances in which that part was ex- amined.
	Severe typhoid fever.	57 54	54 Found in 2 6th day devel. in 3 7th 18 10th 10 from 20th to 30th 21 not stated.	54 In 12 cases very numerous.	54 Mean = 8½ days. Extremes 3 } 15 } days.	
	Mild typhoid fever.	31 31	31 Found in 1 6th day devel. in 1 9th 3 10th 2 11th		31 Mean = 7 days. Extremes 3 } 17 } days.	
SUDAMINA.	Fatal typhoid fever.	9 6	Never observed be- fore 12th day.		3 to 6 days.	Diameter varying from 2 to 4 milli- metres, round or oblong in shape; produced by ele- vation of epider- mis by a colour- less transparent fluid; without any distinct rela- tion to the vio- lence, or the contrary, of the sweats.
	Severe typhoid fever.	21 14	ditto.	Variable.		
	Mild typhoid fever.	13 8				

SYMPTOMS OF TYPHOID FEVER.

Symptoms.	Diseases.	Frequency.	Period of origin.	Degree.	Duration.	Seat or character.
ERYSIPELAS.	Fatal typhoid fever.	46 6	6 4 } days before death. 10 } 28 }	Inconsiderable in 2 cases.	Disappeared in 2 days in 2 cases.	
	Severe typhoid fever.	57 3	3 1 15th day. 1 30th 1 45th			
	Mild typhoid fever.	31 0				
ECHYME.	Fatal typhoid fever.	Not mentioned.				
	Severe typhoid fever.	57 3		3 2 superficial. 1 broad and deep.		
	Mild typhoid fever.	31 0				
RIGORS.	Fatal typhoid fever.	33 31	31 25 1st day	31 8 violent and with trembling. 24 trifling.	31 5 patients only once. 14 frequently during first 8 or 10 days. 6 for 2 or 3 weeks.	If reappeared after cessation, indicated occurrence of some secondary lesion.
	Severe typhoid fever.	45 36			36 9 a single rigor. 27 several times during 8 to 15 days.	
	Mild typhoid fever.	31 24	24 20 1st day.	Considerable in 3 cases.	4 cases once only.	
COUGH.	Fatal typhoid fever.	46 38	38 6 1st day 32 3d to 12th	Generally slight.		38 35 dry, sonorous, or sibilant roushus, sometimes mucous, commonly universal, and very loud; with, in 9 cases, a little crepitation.
	Severe typhoid fever.	57 50	50 10 1st day 40 commonly from 6th to 15th	Generally slight and rare.		50 42 roushus, as above, with crepitation and subcrepitation in 6, from 5 to 10 days.
	Mild typhoid fever.	22 16	16 7 1st day 9 4th to 20th	Commonly very slight. troublesome in 4		16 12 roushus, as above, with subcrepitation in 2.

PULSE.		Size.	Quickness.	Rythm.	
	Fatal typhoid fever	41 13 large and full, until closing days. 8 still larger. 20 small.	41 8 alightly hurried, (80 to 96) rest upwards of 100	41 7 intermittent. 34 regular.	
	Typhoid fever. Recoveries.	57 11 large. 8 small. 38 nothing remarkable.	57 20 not above 90 rest above 90 3 above 100	57 6 irregular or intermittent.	

BLOOD EXTRACTED.		Buffy.	Characters of buff.	Cupped.	
	Fatal typhoid fever.	12 5	5 1 firm, thick, semi-transparent. 4 soft, grey, greenish, gelatiniform.	12 In 1 case, when no buff.	
	Typhoid fever. Recoveries.	32 8	8 1 thick, yellow, and semi-transparent. 1 dense and red. 6 yellowish, commonly thin, soft, and gelatiniform.	32 4 In one of these alight buff.	

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, MAY 15, 1841.

THE ninth volume of the "Transactions of the Provincial Medical Association" has been recently issued from the press, and forms a valuable addition to the series already published. In addition to an account of the proceedings at the Southampton Meeting, and the retrospective addresses delivered by Dr. Scott of Liverpool, and Mr. Dodd of Chichester, it contains An Essay on the Medical Topography of Shrewsbury, by Dr. Ward; Practical Essays and Cases, by Mr. Banner, Dr. Macartney, Dr. Dodd, Mr. Wainwright, Mr. Mallet, and Dr. Walker; and in Medical Statistics, Reports of the Birmingham Town Infirmary, and Birmingham Eye Infirmary, by Messrs. Ryland and Middlemore; A paper on Medical Registration, by Dr. Cowan, and one on the Statistics of Rheumatism, by Dr. Lyon, misplaced by some oversight in the section of topography, instead of under the head of Statistics, to which it more properly belongs. Several of these communica-

tions are of considerable interest, not only on account of their individual merits, but as bearing upon important general questions. To the retrospective address of Dr. Scott, which has already appeared in a separate form, we have before referred; that of Mr. Dodd in surgery is no less worthy of attention and analysis, and affords a condensed and able summary of the progress made in that department, illustrated by the observations and remarks of a highly-intelligent surgeon, on the several points of practice which come under review. The essay of Dr. Ward, although too much encumbered with geological details, for many of which, a reference to the work of Mr. Murchison on the Silurian system would have amply sufficed, is a creditable production, and adds another district to those already mapped out, and rendered available to the purposes of the medical topographer in the preceding volumes. The essays and cases of a more practical character are chiefly surgical, and bear testimony to the judgment and skill of provincial practitioners. The Birmingham Infirmary reports are a continuation of those before drawn up by their able and indefatigable authors, and the paper of Dr. Lyons is a contribution to statistics such as we hope to see applied to other diseases, and followed up by similar communications from dif-

ferent localities. That this may be done effectively, a careful system of registration is indispensable. The advantages of such a system, both in respect of the materials accumulated and the individual benefit of those who have recourse to it, have been pointed out by us on a former occasion. Some of the remarks which we then made are confirmed by Dr. Cowan, in his excellent "Suggestions as to a form of register for hospitals, dispensaries, and private practice," with which the volume concludes. To this paper we are especially desirous of directing attention, as affording "suggestions" well calculated for the attainment of the important object in view. There are few more able to appreciate the value of medico-statistical inquiries than Dr. Cowan, or better qualified to point out the mode in which they should be followed. Independently of the attention which he is known to have paid to this department, the information which he could not fail to acquire in the study, and translation of the work of M. Louis on phthisis, would in itself render his opinions worthy of every consideration. The publication of this short essay, through the medium of the "Transactions of the Provincial Association," will make the plan of registering the results of practice recommended by him accessible to most of the hospital and dispensary medical officers throughout the kingdom. But to attain valuable results from a plan of this kind, it becomes necessary that it should be extensively adopted. The regular registration of cases, even upon a limited scale, is always attended by individual benefit more than commensurate with the time and labour bestowed; but to be available for public purposes, the accumulated experience of numbers becomes necessary. We are greatly obliged to Dr. Cowan, therefore, for pointing out a method of registration sufficiently comprehensive for the attainment of many valuable data, and yet at the same time so simple as to admit of receiving the personal attention of the most fully occupied. The plan of registration proposed by Dr. Cowan includes the name, age, sex, state, residence, and occupation of the patient; the dates of admission and discharge; the duration, name, and result of the disease; the cause of death when fatal, and the general treatment, with observations, and one of two other minor points. It is recommended by Dr. Cowan, that the register, when open, should be not less than thirty inches across, and the length of the page about twelve inches. This length of page, including the headings, is intended to allow of the insertion of eighteen cases on lines six-tenths of an inch apart. A slight modification may be made without inconvenience, by increasing the number of lines to twenty, for which the space is amply

sufficient. The advantage of a decimal notation would be attained by such an alteration, which, though apparently trivial, is important in many ways, not the least of which is the check thereby readily afforded to accidental or inadvertent errors in the numbering. The number of the case, name of the patient, and age, occupy the three first columns; the sex and state follow each of these particulars, for the convenience of reference, being registered in two columns according as the patient is male or female, single or married. It would be well to add a third column to those which refer to the state or condition, to designate whether the person is a widow or widower, as there is a question whether the occurrence of certain diseases, carcinoma uteri, for instance, and some other uterine affections, are not more readily developed in females so circumstanced than in the married or single. The residence, occupation, and dates of admission and discharge, follow next in succession, and then come three columns for noting the duration of the disease, viz. the number of days on the books, the anterior duration, and the total duration. The first is of course readily deducible from the dates of admission and discharge; but we have ourselves always experienced, in chronic ailments especially, and not unfrequently also in acute attacks of any standing, the greatest difficulty in obtaining anything like definite information from patients upon the previous duration of their complaints. Nothing can be more vague than the answers to the inquiry of how long have you been ill, and oftentimes the closest and most sifting examination as to the first commencement or actual duration of the symptoms, will fail to elicit even an approximation to the truth. In the more severe cases, the period of cessation from work, or confinement to the house, or to bed, may usually be more easily ascertained—an inquiry which, in a statistical point of view, might possibly furnish some results worthy of recording, as showing the absolute period of unproductiveness. But without taking into consideration their partial application, little real information can thus be gained with respect to the duration or severity of disease, since the indolent or idle are always glad of the excuse to cease from their labour, while the industrious artisan will often not forsake his employment until his energies are entirely subdued, and his strength absolutely prostrated. The next column to these, which is the last on the right-hand page, contains the name of the disease. This should not be entered until the termination of the case, and Dr. Cowan recommends that, as far as practicable, the nomenclature made use of by Mr. Farr in the returns to the Registrar-general should be adopted. Without entering into the question as to whether the sys-

tem of nomenclature and classification employed in these returns is the best that could be devised, we believe that it is the one from which, under the difficulties with which Mr. Farr had to contend, the most correct results are attainable. No doubt greater precision might be given to records of disease, drawn up entirely under the direct and personal superintendence of competent medical practitioners, but there is a manifest advantage in rendering these records available for comparison with the extensive data embraced in the Registrar-general's report, which amply compensates for defective nomenclature on the one hand, and for a greater degree of precision in drawing out the general summary on the other. The further advantage of uniformity of plan is also likely to be attained, as the majority of practitioners will be more readily disposed to admit the authority and to follow the example of the public returns, than they would to be guided by the speculative views of any private individual or select body. On the left hand page, the result of the cases is to be entered under the heads of recovery, relieved, convalescent, left sick, incurable, irregular, and died; to each of which, for facilitating the convenience of inspection and reference, a separate column is allotted. A column for the cause of death follows, and another headed "Made in or out patient," which is not sufficiently definite, and unless rendered more so, might be omitted with advantage. The general treatment, observations, and name of the medical attendant, are registered in the three concluding columns. We have been thus particular in giving an analysis of the plan proposed by Dr. Cowan, because it is at once simple and comprehensive, and if steadily and extensively followed out, will, we are assured, be found most useful. Young heads fresh from the schools may possibly think that more particulars might have been embraced, but the object to be sought is a correct statistical record of facts, attainable at the least possible expenditure of time and labour. Those who are disposed may, if they please, keep also a more full record, embracing a multitude of other particulars which, if persevered in, may ultimately produce valuable results, but we hope that in so doing they will not neglect to keep also a record on the simple and effective plan recommended by Dr. Cowan. Such a plan may be carried through even in the hurry of accumulated and laborious practice, and if once fairly commenced, we doubt not will be continued. To keep up a more comprehensive system of registration will be found a burthensome task, often imperfectly performed, and ultimately, as the calls upon time increase, impracticable; and the daily recording of every case which presents itself will

inevitably be given up at the very period when, if persevered in, the practice would prove most valuable. It is far preferable that we should be content with the full and satisfactory attainment of limited objects which are within reach, than that we should weary ourselves with a futile attempt at grasping all that may be desirable. In the former case the work will progress steadily, and well-ascertained facts will gradually accumulate; while in the latter, the attention becomes distracted by the multiplicity of objects, and a mere mass of ill-digested, imperfect, and often incorrect materials will be collected together, from which, ultimately, little real information can be derived. An additional suggestion, which may be followed with advantage, is, that the results of the registration should be thrown into the form of tables at the close of each year, and any illustrative observations connected with them recorded at once. These may be reserved for future reference and comparison, or if a sufficient number be collected to afford definite information, published at once in some of the Medical Journals.

REVIEWS.

Elements of Medicine. Vol. II., on Morbid Poisons. By ROBERT WILLIAMS, M.D., President of the Royal Medical and Chirurgical Society, Senior Physician of St. Thomas's Hospital. London, Baillière, 8vo., pp. 686. 1841.

ABOUT four years since Dr. Williams published the first volume of his *Elements of Medicine*, his principal object being to establish the doctrine of the specific actions of morbid poisons, and the proposition that the general laws of morbid poisons do not greatly differ from those which govern the action of poisons generally. Typhus, scarlatina, morbilli, variolæ, varicella, erysipelas, and pertussis, were the subjects then treated; and in the volume now before us, we have the remainder of the class of diseases which are, in the opinion of the author, dependent on the agency of morbid poisons, namely, vaccinia, syphilis, gonorrhœa, hydrophobia, pestis, cellulitis venenata, farcinoma, porrigo, febris palustris, dysenteria palustris, cholera, and influenza.

With an array of subjects so numerous and important, we cannot be expected to give anything like an analysis of the present volume, but it would be wrong not to enter at some length on Dr. Williams's views of the treatment of syphilis, as it is here, especially, that he has conferred benefits on medicine and mankind, having been the first to intro-

duce the employment of the iodide of potassium in the treatment of secondary syphilis. When speaking of the treatment of the syphilitic affections of the bones, Dr. Williams says,

"So many cases have, at all times, been hopelessly treated by mercury, that there is no surgical writer on syphilis, from Ambrose Paré to Desruelles, who has not proposed cutting down on the intractable node, and destroying it either by actual cautery, or by the hammer and chisel. New experiments were, therefore, necessary to determine a more efficient treatment of this affection, and the discovery of the virtues of the iodide of potassium, as its surest antidote, forms an epoch in the history of syphilis."

Two cases are then related, in which this medicine was administered, and the author proceeds.

"The sudden cessation of the periostitis in the first case was remarkable; but it might have been spontaneous, and not the result of the exhibition of the iodide of potassium. A second successful case, however, appeared to establish a connexion between that medicine and the hard periosteal node, and the practice has been subsequently repeated with the same fortunate result in so large a number of similar instances, certainly not less than two or three hundred, that it appears to be clearly and irrefragably demonstrated, that this salt is the great specific remedy in the cure of this form of secondary syphilis. Indeed, the action of quina, in the cure of ague is hardly more certain or more striking than the beneficial effects of the iodide of potassium, in the cure of the hard syphilitic node. Its effects, in the large number of cases that has been mentioned, have been, with only one exception, to remove the pain in a very few days, and if the node be recent, and the parts not extensively disorganized, to permanently cure the patient."—p. 163—5.

This subject is of such importance, that we subjoin the following judicious remarks on the mode of administering the iodide. Dr. Williams says it

"Has been given in doses of 15, 20, and even 30, or more grains; but this is in excess, and generally produces headache, vomiting, and purging. Some constitutions, on the contrary, are offended even by one or two grains. The average dose, therefore, of the iodide of potassium has been found to be eight grains, three times a day, and even this often causes three and four motions in the twenty-four hours. A smaller dose can hardly be recommended, for the patient's intense sufferings require immediate relief, and consequently we ought to begin with as large a dose as his stomach will probably bear. Eight grains is a mean dose for an adult, and usually gives relief in three or four days, and is, therefore, plainly efficient. Some practitioners are in the habit of adding half a grain to one grain of iodine to the iodide of potassium. But supposing iodine to act in proportion to the quantity absorbed, and not by its mere acidity, this is a great medical error; for it disorders the stomach without, in any sensible degree, benefiting the complaint. It is determined, for example, that the

iodide of potassium contains three-fourths of its weight of pure iodine, so that a patient taking 28 grains of the former, in the course of 24 hours takes no less than 21 grains of the metal. The addition, then, of half a grain or a grain in the 24 hours of the pure iodine, is so trifling that it may be neglected, while its acidity is so great that Mr. Stone, of Christ's Hospital, formerly assistant-apothecary at St. Thomas's, stated to me, he was called to prescribe for ten patients taking the compound of iodine and iodide of potassium for one that was taking the last medicine only."—p. 167.

The observations on the diagnosis and treatment of the other syphilitic affections are extremely able, and the reader will find much original information, especially on rupia and syphilitic angina; but our space prevents us from entering on them at present.

The work, taken as a whole, is masterly both in conception and execution, and highly creditable not only to the author, but to the medical literature of the country. Dr. Williams is one of the very few physicians of the present day who combine pathological research with a rational empiricism; and this, with the great opportunities for observation he enjoys in one of our largest hospitals, gives great weight to his doctrines and practice. His present work will always be a standard one on the subject of morbid poisons; and had he no other claims, science would be greatly indebted to him for "separating this interesting class of disease, singular in its laws and peculiar in its treatment, from the great body of medicine with which it has been so long confounded."

Popular Cyclopedia of Natural Science. Vegetable Physiology. Tanner and Co., London, 1841. 8vo. pp. 295.

A SOCIETY, formed under the denomination of "the Society for the Promotion of Popular Instruction," has undertaken the laudable task of promoting the progress of knowledge, by publishing a series of cheap works on natural science. It is the intention of the society that these works should be all founded upon such knowledge as every person of ordinary capacity possesses; the reader's attention being, in the first instance, directed to the phenomena which are constantly occurring around him, and thence led to general principles.

Each treatise will be in itself distinct, but they will all form parts of one general plan, to be executed by one writer, who, we are assured, is a gentleman of high scientific position, and great zeal for the dissemination of knowledge.

The first volume of the series is devoted to the subject of vegetable physiology. We cannot but

bestow our warmest praise on the manner in which the author has executed the task entrusted to him. The "Vegetable Physiology" is one of the most instructive, and, at the same time, entertaining books with which we are acquainted; the style is pleasing; the illustrations apt; every page is a happy combination of the *utile* and the *dulce*. The volume, moreover, contains about sixty-four woodcuts. If the succeeding numbers of the Popular Cyclopædia sustain the reputation which the one before us must attain, they will form an instructive and highly useful series of works, "popular" in every sense of the word.

A Series of Anatomical Sketches and Diagrams, with Descriptions and References. Part IV.
By THOMAS WORMALD and ANDREW M. McWHINNIE. Highley, London, 1841.

As we have only seen one part (IV.) of the present work, we are unable to give any idea of the plan upon which the authors propose to conduct it, or of the extent, &c., to which it may probably reach. We must, therefore, confine our observations to the number now before us. This number, or part, contains four anatomical sketches which are well calculated to fulfil the double purpose of refreshing the ideas of the practitioner upon anatomy, and of aiding the pupil in his dissecting-room labours.

In the first plate we have two sketches, representing the course of the thoracic duct in the neck, and the distribution of the laryngeal nerves. In the second plate is represented the axillary plexus; in the third, we have the anatomy of the axilla; and, in the fourth, we find two very excellent views of the elbow-joint.

The sketches in the present part are executed in a careful manner, and with much fidelity; and we have no doubt but that the work will prove an acquisition to students and junior practitioners.

ON SLEEP;

WITH ARGUMENTS IN FAVOUR OF THE DOCTRINE OF AFFLUX OF BLOOD TO THE BRAIN DURING THIS STATE.

(Read before the Royal Physical Society of Edinburgh.)

By LEWIS ASHENHEIM, M.D. L.R. C.S.E., &c.

BEFORE entering on his subject, Dr. Ashenheim examines the various theories respecting sleep, which have been advanced by Scaliger, Blumenbach, Cullen, Ferriar, Darwin, Combe, and other writers. He then proceeds to deliver his own views in the following terms:—

"Although, as before stated, I have at present no satisfactory theory to offer, yet I have my opi-

nions as to what may be the cause of sleep; and although these opinions may perhaps have been precipitately formed and ill digested, yet, in some points at least, they are borne out by analogy. It is my belief, that in sleep there is an afflux of blood to the brain, notwithstanding the high authorities that are opposed to this view; and my reason for so believing, is the occurrence of some of the symptoms which present themselves in compression of the brain, which is often owing to a determination of blood to, or an effusion of the same on the surface, or in the substance of the brain. Let us now examine some of these symptoms; in compression of the brain, the pulse is slow, so is it in sleep; in compression of the brain, the surface is often natural, so is it in sleep; in the disease, the limbs are relaxed, so are they in sleep; in compression, there is insensibility to light and sound, so is there in sleep; in the former, there is stertorous breathing, so is there sometimes in the latter. Now, although I cannot at present prove to you that there is really an afflux of blood to the brain during sleep, and drawing my conclusions, as I do, from the above corresponding circumstances, yet it cannot be deemed presumptuous in me to advance, that such *may* actually be the case. Blumenbach has endeavoured to prove, that the circulation is diminished, and the quantity of blood less in the brain during sleep, and in doing so, he quotes a case of a patient of his, who had been trepanned, and in whom the brain was observed to sink during sleep, and to swell when he was awake. McNish and others join Blumenbach in his conclusions. But they seem to have forgotten one important fact, and that is, that the brain was subjected to the atmospheric pressure. The question may then be asked, why did it swell when the man was awake? *that* I answer thus, that as in the waking state, the circulation is more rapid than in the sleeping, the brain is in a fitter condition to resist the pressure. In a conversation which I lately had with a friend upon this subject, it was argued by him that there is *not* an afflux of blood to the brain during sleep, and, in endeavouring to prove this assertion, he quoted cases of children and others, who, after losing a great quantity of blood, had died in a state of complete sopor, and in whom he said that there possibly could not have been an accumulation or pressure of the vital fluid upon the brain, as *that* had, before death, been literally drained off; the little remaining, having been inadequate for the carrying on of the vital functions, which had been the cause of death. If then, he argued, there was not sufficient blood to sustain life, if the organs did not receive the quantity essentially necessary for their existence, how can you account for the profound sopor which ensued, sleep, according to your view, being caused by an afflux of blood to the brain? I confess that, at first, this startling argument somewhat staggered my belief in the theory which I had adopted, but on reflection I found that the very facts brought forward to weaken my views were actually the means of strengthening them. In Abercrombie's work on the brain, we find allusion made to the observations and experiments of the late Dr. Kellie of Leith. That much lamented gentleman bled animals to death, and almost invariably found, that while all the other organs were found completely blanched or drained of their blood, the

brain presented its natural appearance; nay, sometimes have the superficial veins been found so distended, that one writer has proposed the paradox, that animals which have been bled to death die of apoplexy. This, in my opinion, is an additional circumstance which warrants our belief in the doctrine of afflux. Let us suppose a case: here we have an individual in whom a violent inflammatory or any other disease, renders the taking away of a large quantity of blood from the system imperative; the system cannot safely meet the great demand made on it, the patient sinks into a state of sopor, and dies. The *post-mortem* examination shows us every part of the body bloodless, or nearly so; the heart, lungs, and great blood-vessels do not contain a material quantity of the fluid so absolutely necessary for the performance of the functions of life; the brain alone preserves its natural appearance; its veins and sinuses, however, are gorged with blood. Why this is the case in the brain, and not in any other organ of the body, is a subject which this is neither the time nor place to discuss, as any view which we, in the present state of our knowledge, could advance, must be purely hypothetical. Those, however, who wish to inform themselves on this point, will find this matter discussed in the work I have just mentioned, and also in the first volume of the Transactions of the Medico-Chirurgical Society of Edinburgh. I was in hopes to have brought the results of numerous experiments which I have made on some of the lower animals before you this evening, and to have proved to you that in sleep there is an *increased* quantity of blood in the brain; but owing to the many difficulties which must be surmounted before being able to do so, and at the same time to silence all important objections which might be raised against them, I have thought it better to institute a new set of experiments which now engage my attention, and with the results of which I trust soon to make you acquainted. I have now given you my opinion, such as it is, and hope that any gentleman disposed to criticise it, will deal mercifully; as it is *now* stated only as an hypothesis, and not as an absolute fact. Having, therefore, at present, nothing truly convincing to offer you in the shape of a theory, I now proceed to the definition, phenomena, and remote causes of sleep."

Dr. Ashenheim next describes the phenomena, varieties, and remote causes of sleep, dwelling particularly on cold and opium. He relates, among others, a case in which 102 grains of opium had been taken, and had produced stimulating effects. Protracted sleep is considered in the concluding section of this interesting paper; and two remarkable cases are quoted, in one of which a person slept for six weeks, and the other for five, without interruption.

ACADEMY OF MEDICINE.

Paris, May 4.

PREVENTION OF THE PLAGUE.

By M. AUBERT.

M. AUBERT commences his paper by asking how has the plague been driven from Europe? by

civilization and hygienic measures, or by quarantines and lazarettos? Such are the questions which the author proposes to solve. After having defined civilization to be the progress made in agriculture, science, and industry, M. Aubert proceeds to examine the circumstances under which the plague is developed in eastern countries. In Egypt, for example, what most strikes the observer is, in addition to the great filth, the total neglect of all measures of public health. Hence the plague rages with peculiar fury in that country, but its progress is in some sort regulated by certain circumstances, which vary at different times and in different places. Thus it has certain periods of invasion, of decline, and of disappearance; it affects certain localities only, and the mortality which it occasions is always increased in times of public distress. It raged in Alexandria in 1834; in Smyrna, in 1837; but as the individuals of the same nation are much better off in one of these cities than the other, it was easily seen how considerably the disease was modified by comfort, good food, &c. This is so much the case, that the plague disappears of itself in localities where the proper measures of hygiene can be adopted. It has often happened, in the hospital of Alexandria, that the plague attacked some one patient, in spite of the strict quarantine observed, and then disappeared, without affecting a single other patient.

The author next examines lazarettos and the sanitary laws. These commenced towards the end of the fifteenth century, a period of ignorance when the most absurd opinions found credit, and when even a common cough was thought to be contagious. If lazarettos were useful, the results obtained from them must prove this; but what does history teach us?

The first lazaretto was established at Venice in the year 1403; before that time there had been 11 epidemic attacks of plague in 365 years; but after it there were 16 attacks in 227 years. At Marseilles the same thing occurred.

Again, during 1,700 years of civilization, Egypt was free from plague, which began to reign about the year 263 A. D. Greece, also, furnishes a similar example. Italy was ravaged by the same pest in its seasons of barbarism; they had nearly disappeared under the effects of civilization when the irruption of the barbarous tribes, and the fall of the Roman empire, restored the disease until the time of the Medici.

In France lazarettos were established in the year 1467, but they did not prevent epidemic attacks of the plague until the reign of Henry IV.

The histories of England, Germany, and Spain, teach us the same lesson. In recapitulation, M. Aubert claims attention for these two facts, *vis.* in ancient times the plague was extinguished by the mere progress of civilization, without lazarettos; the disease continues still in certain countries, in spite of lazarettos, but is everywhere eradicated as civilization makes a certain progress.

FOREIGN HOSPITAL PRACTICE.

ANEURISM FROM VENESECTION.

By PROFESSOR HORNER of Philadelphia.

Miss B., of Georgia, ætat. 8 years, being exceedingly ill in March, 1837, was bled by a physician in the left arm at its bend. Nothing unusual at the time was perceived, but in a week afterwards she felt a small pulsating tumor, the size of a pea; it continued to increase, and she was brought by her parents to Philadelphia, and placed under the charge of Dr. J. Randolph, who called me into consultation.

At this time, September 27th, 1837, the tumor is about the size of a large filbert; has a strong pulsating motion which may be felt vertically, laterally, and also when the arm is bent, and the tumor pulled up from it. Pressure diminishes its size to one half; it then remains hard and unyielding. Pressure on the brachial artery arrests its pulsation. There is no thrill or purring noise as in varicose aneurism; the vein which was opened at the point of bleeding, is not visible.

On the 29th of September, an operation was performed by Dr. Randolph, the course of the blood being regulated by a tourniquet on the arm. The skin was slit up for two or three inches in front of the tumor, which exposed the tumor beneath the fascia of the arm and the aponeurosis of the biceps: these being dissected through, the tumor was laid bare by continuing the dissection over its service, so as to exhibit the brachial artery and vein both above and below it. A ligature common to the two vessels was then carried under them, above the aneurismal tumor; it, upon trial, was found to control the pulsation of the tumor; it was then fixed, and the aneurismal tumor cut open. Upon slackening the tourniquet, blood issued from the tumor freely; a ligature was then fixed upon the artery and vein below the tumor; upon loosening the tourniquet again, blood flowed from the tumor, but not so freely. The tumor was now detached still more from its bed; a knife-handle passed under its middle, and along it, one ligature conveyed above, and another below; these ligatures were directed in such a way as to insulate the tumor completely, by being tied above it and below it; the one below being drawn first was found to restrain the bleeding completely, but to make everything secure, and to put the disease beyond any possibility of recurrence, the upper ligature was also fixed.

The vein which probably was the one that had been bled was seen in front of the sac adhering closely to it; it appeared to be almost obliterated below, and was very small above. There was nothing like a varicose state perceptible in it; so that if it had really been punctured, the wound had healed.

The sides of the tumor were very thick, and indurated, which will account for its not being entirely flattened or collapsed by pressure before the operation, and there was no coagulated blood. Whether it was formed by a dilatation of the artery, or by a cyst on its side, was not ascertained, from the obscurity of parts during the operation.

The tumor sloughed off kindly in this case,

and the wound healed by the 20th of October, the recovery being perfect.—*American Journal of Medical Science*, Jan. 1841.

CONTRACTION OF THE FINGERS AFTER BLEEDING, CURED BY ELECTRICITY.

C. LECLERC, servant, 19 years of age, was admitted into the Hôtel-Dieu, on the 5th June, 1838 for a burn on the leg. She was ordered to be bled; the *externe* made two incisions, having failed to obtain blood the first time; the patient immediately complained of numbness of the arm, which rapidly increased, and at the same time the fingers became so firmly contracted that the dresser had great difficulty in withdrawing the rooler which the patient held in her hand. M. Breschet was sent for at once, but thought lightly of the matter: the contraction of the fingers, however, continued in so great a degree, that it was found necessary to place something in the palm of the hand to prevent the nails from wounding it. Every means were used to overcome this contraction of the flexor muscles, without avail: a splint was tried for fourteen days, but as soon as it was removed, the fingers resumed at once their old position; in a word, various remedies were tried for six months, but everything failed. At length M. Breschet resolved on trying the galvanic battery. On the 20th of December a needle was passed into the extensor muscles near the elbow, and another into the back of the wrist; twenty-five and thirty pair of plates were employed, but without effect; the contraction seemed even worse. The needles were now withdrawn and placed, one near the origin of the flexors, the other in the palmar surface of the annular ligament of the wrist; the same strength of pile was used, and to the great surprise of all present, the fingers were gradually extended under the influence of the galvanic shocks; the thumb alone remained flexed. Galvanism was regularly employed every day; on the fourth, the woman could use her index and middle finger freely; on the seventh, the ring-finger became free. Unfortunately the woman now left the hospital, and nothing more was heard of her until she came, of her own accord, in the month of July, 1839, to announce that she was quite well. She informed us that for a short time after her departure from the hospital she had the use of her fingers, but the contraction soon returned again. She consulted a medical man, and told him the means from which she received so much benefit before. He tried galvanism also, and after the twelfth application a perfect cure was obtained. She has not suffered any relapse since that time.—*Journal des Con. Med.*

There are two remarkable points in the history of this case; the sudden appearance of contraction after a wound made by the lancet; and the curious fact that galvanism, instead of increasing the muscular action, had a contrary effect.

ACUPUNCTURE OF THE HEART IN APPARENT DEATH.

By Dr. A. CARRARO.

DR. ANTONIO CARRARO informs us, in the *Annali Universali di Medicina*, that he has successfully used *acupuncture* in cases of apparent death. He performed the following experiment before several individuals. An eight days old cat was kept under water until all motion ceased, when the animal was taken out; the tongue protruded from the mouth, and was covered with froth. The extremities were stiff, there was no pulsation of the heart, and every other sign of life was absent. On being cast into the water for the second time, it sank to the bottom. It was then taken out, exposed to the sun, and dried with warm towels. Abdominal frictions were ineffectually practised, and it was not until the lapse of three-quarters of an hour after the disappearance of the signs of life, that acupuncture was had recourse to. A needle was pushed onwards through the heart, until its point rested on the vertebral column. Five minutes had hardly elapsed, when the needle was observed to move, which indicated a movement of the heart. This motion increased, which was soon followed by movements of the upper extremities, then respiration, crying, and lastly, movements of the whole body. The animal continued to live and suckled its mother.

This same experiment was frequently repeated with similar effects, from which Dr. Carraro concludes, that puncture of the heart is not only a useful but a safe operation. He concludes his remarks by trusting that his method may be tried in cases of asphyxia.—*Froriep's Notizen*. &c., vol. xv.

ROYAL INSTITUTION.

FULLERIAN PROFESSORSHIP.

THIS professorship having been vacant by the expiration of Dr. Grant's period of tenure, Mr. Solly, Mr. Rymer Jones, and some other gentlemen, were, we hear, candidates. The election fell upon Mr. Rymer Jones.

LITERARY FUND ASSOCIATION.

We have heard with much pleasure that this Association has contributed the sum of 50*l.* to the fund collected for the widow and children of the late Dr. Ryan.

DEATH AFTER AN OPERATION FOR STAMMERING.

A young Jew, upon whom Professor Dieffenbach performed his operation for stammering, was dismissed seemingly cured. He returned home to his friends. Owing to irritation caused by the cicatrix, he commenced picking the tongue; hæmorrhage came on, which proved so alarming that M. Dieffenbach was sent for; he came, but so much blood had been lost that the man sank.

VACCINATION ACT AMENDMENT BILL.

Mr. Fox Maule and Sir T. Wilde have brought in a bill to make the following amendments in the Vaccination Act:—1st. Guardians of the poor in England and Ireland, by whom contracts *have been* or may be made, may defray the expenses out of the poor-rates. 2d. Vaccination, or any medical or surgical assistance arising out of it, is not to be considered as parochial relief; and no person is to be deprived of any right or privilege, or be subject to any disqualification for having undergone such vaccination.

BOOKS RECEIVED.

Des Maladies de la Femme, et des Medicaments les plus efficaces a employer dans leur Traitement. Par A. Cavarra, D.M.P., Paris, 1841.

On Gout, its Cause, Nature, and Treatment. By John Parkin, &c. Hatchard and Son, London, 1841, 8vo. pp. 140.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Wednesday, May 5, 1841.—Charles Drazley, James Paton, Charles Christopher Erasmus Hopkins, Henry Pavey, John Gallagher, George Leopold Perfect, Thomas Thexton, James David Brown, James Thompson, William Eagles Johnson, William Newton, James Arnold, Thomas Barker Smart.

Friday, May 7.—George Benwell Rosewall, George Kingston Barton, John Frederic Owen, James Raney Leach Allott, John Shaw Willes, William George Swan, Panks James Wigginton, John Dalston Jones, Alfred Clarke.

Monday, May 10.—Richard Seally, William Pearce Berryman, Osbert Fishlake Cundy, Archibald Dougherty, Edward Augustus Rawlinson, Walter Lawrance, Nathaniel Moore, Edward Smith, James Richardson Johnston, Edward Gleeson, William Viner Beadle, Christopher Fryer Curtis.

TO CORRESPONDENTS.

We shall attend to the hint relative to the College of Physicians.

X.—The Poor-law Report will soon be resumed.

Printed by THOMAS ISOTON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JONAS PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS BUNNEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, May 14, 1841.

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COURSE OF LECTURES ON PHYSIOLOGY AND SURGERY,

DELIVERED AT ST. GEORGE'S HOSPITAL,
BY JOHN MUNTER, F.R.S.

(From the Manuscript of Dr. Thomas Shute.)

LECTURE IV.

ON HEAT AND COLD.

THESE affect the living and sensitive principle nearly alike, so that the sensitive may be considered as a thermometer to the living. Heat pervades all matter; we know of no bodies destitute of it. It may be considered as the principle of fluidity—it has a very material power in animalization and vegetation: it is also a cause of most actions in nature. Heat and cold must be considered as relative terms, because we know of no body entirely deprived of them. But our sensations may in some degree be considered as a medium or standard.

Both animals and vegetables have an internal source of heat which is necessary to their existence, independent of the heat from without. But the more perfect animals possess this power in the greatest degree, but when, from exposure to cold for a long time, the generating power has been long and strongly excited, the animal becomes weakened and hurt.

Animals and vegetables have their heat affected by the atmosphere. Animals are influenced more in proportion to their imperfection. In those below birds this is more sensible; but there are certain degrees below which they cannot exist. I consider man, and most of the quadrupeds, as the most perfect animals. 2d. Birds. 3d. Amphibious animals, which have two auricles and two ventricles, but there is a communication between the ventricles, which makes them of the same effect as one. 4th. Fishes; these have only one auricle and one ventricle. 5th. Insects. 6th. Reptiles. 7th. Polypi. Vegetables are still more influenced by the temperature of the atmosphere; they will allow their own heat to be considerably below the freezing point, and yet retain life. The generality of vegetables do not admit of their fluids to freeze while they are alive, but there are some exceptions to it. A hole was bored into a tree, and a thermometer introduced; it was found to be 15 deg.; upon taking out some of the sap, which was fluid while in the tree, it froze at a much greater degree of heat; hence vegetables do not appear to generate much heat; but they will resist freezing almost at any degree while they retain life.

The more perfect animals have a standard of heat; a degree of it which is more permanent in them; the less perfect animals vary more in their heat, in proportion to their imperfection. Varia-

tions of heat occur, however, in the more perfect animals; and these variations occur more readily below than above that standard; animals, in general, having a greater power of resisting heat than cold. As a certain degree of heat destroys the texture of a part, so very intense cold has the same effect; and when the structure of important parts is altered, life is extinguished. All elongated extreme parts of the body are more exposed to external heat and cold than the internal parts. Habit has no small influence in regulating sensation; as parts used to considerable variations of heat and cold are less affected with either. The cuticle, as a dead covering, generates no heat, and experiments on animals should not be made upon it; for it will receive both more external heat and cold than living parts. The generating power of heat cannot be roused by occasionally invigorating the system; for a person, after eating a hearty supper of roast beef with spices, and drinking a bottle of wine and porter, was not found to have any sensible increase of heat, though his pulse had risen from 73 to 87. Hence it appears that the pulse may be quickened without the vigour of the system or the generating powers of heat being increased.

From experiments on animals with different degrees of cold, we have reason to conclude that the sedative power of cold suspends, in the more perfect animals, the voluntary actions; but that beyond a certain degree, and after the sedative power has operated, the constitution is roused for the purpose of generating more heat. When an animal dies of cold, it seems owing to this; that life is expended in producing heat, which is carried off as fast as produced. It is found that in sleep the animal heat sinks about a degree and a half. An animal weakened by fasting is found to have the generating powers of heat much weakened. The different parts of the more perfect animals have not the same degree of heat, and the vital possess the greatest heat; and the quantity of heat generated is according to the health and vigour of the animal.

It has been observed that the more perfect animals in general, and man in particular, have a power of generating heat when in an atmosphere much below the animal heat, and also a power of resisting heat when in great degrees of heat, always endeavouring to preserve the standard. This steady cooler temperature of the human body must be owing to a power constantly exerted to keep down the heat applied, or to a power of generating cold; and perhaps it may be more fatiguing to the system to oppose heat than cold. Dr. Ferdyce's experiments confirm that man in particular has a power of resisting heat. He entered a room the air of which was 271 deg., and remained in it eleven minutes. The heat of his body was hardly increased, though beef-steaks suspended in the air were broiled in it.

The lower animals, as fish, &c., have scarcely any standard of heat; they will very easily ac-

quire the same heat as the water or medium they are in.

Life is not peculiar to visible organization and spontaneous motions; there is a low degree of life which seems to consist merely in the power of continuing existence in a certain form. I was led to entertain this idea twenty years ago, from observing in my experiments on the progressive growth of the chick, that the yolk, the greatest part of which remained to the last hour of incubation, always continued sweet, if the egg had hatched; but if it had not hatched, it became putrid like other dead animal matter. It appears also, that living eggs observe the same laws of heat with the imperfect animals, its powers depending on the same principle.

From experiments it appears that the more imperfect animals have their heat and cold varied, much in the proportion in which the heat and cold is capable of changing the position of their parts, i. e. much in the proportion in which common matter is affected with heat and cold; hence I consider heat as less essential to life in the imperfect animals: but though their life admits of great latitude of heat and cold, their secondary actions, such as digestion secretion, and propagation, must be supported by a certain steady degree of heat; hence, when the external degree of heat is much diminished, they become torpid, and their actions are suspended. Quadrupeds requiring much food, and constantly digesting, require constantly a considerable degree of heat.

Propagation, of all the actions of the system of any animal, requires the greatest health and vigour. Flies, gnats, wasps, vipers, &c., are some of the animals which become torpid in winter. Bees remain active in the greatest cold, and, like the more perfect animals, need a constant supply of food, eating most when the weather is coldest. This I learned from keeping a hive in a chamber, and weighing it on different days when the weather was coldest. Bees, then, digest and retain their heat in the depth of winter; in warm weather they eat less. More imperfect animals lose the power of digestion when the cold sets in. When in the island of Belisle, I found a lizard sleeping in its hole during the cold weather. I introduced some animal food into its stomach, and left it there; on revisiting it early in the spring, not a particle of the meat was digested. Its circulation was very languid while in the sleeping state. Digestion is the first and most necessary of the secondary actions.

From experiments it appears that every animal freezes (and dies) when its heat sinks for any time below 32 deg. It is also discovered that the more imperfect animals readily take on the temperature of the surrounding substances. These are facts which contain sufficient reason why such animals, guided by some unerring stimulus, retire in the beginning of winter to lurking holes out of the freezing cold; frogs under large stones, fish to deep water, birds of passage to more suitable climates, &c. I have never been able to freeze whole animals and recover them; but parts of animals, though frozen, revive. In long frosts the edges of cocks' combs drop off, from their continuing for weeks frozen; the living parts set to work and separate the frozen part as if it were dead; but a part frozen only once or twice continues connected with the living part, and does not separate.

VEGETABLES.—The living principle of animals is extinguished when their heat sinks lower than 32 deg. It is otherwise with vegetables; they in general sustain, without being killed, the cold of the country where they grow. In some northern regions the cold is more than 80 deg. below 0, yet there the spruce, fir, birch, &c. grow and live. It is a curious fact that while the cold of the tree, and of every part of it, is in cold climates and cold seasons below 0, the sap doth not congeal; and it is equally curious that if the sap is discharged from a hole bored in the wood, it will immediately freeze; thus the sap, so long as it is contained in its proper canals, bears intense degrees of cold unfrozen. When the sap of a tree congeals from cold, it is commonly the death of the tree; the wood is rent longitudinally, and the powers of growth and life are destroyed. That the sap and juices of vegetables remain fluid in extremely intense cold, is not owing to any motion of the juices, for in such circumstances they are at rest. It seems owing to the life of the tree operating in a manner not easily explained.

When vegetables are exposed to great cold, there is a power called up to resist congelation, and not to prevent the effect of cold, because they can admit of great degrees of it. The heat of animals is not owing to the circulating of their blood, for a dog's nose is cold, notwithstanding the blood moves in it; nor is it connected essentially with the nerves, as it exists in animals which have no brain. Snow, ice, and common salt united, generate cold; also the nitrous acid has the same effect when added to the other, only in a greater degree. Leaden vessels are the best for these experiments, as they conduct heat very fast.

EXPERIMENTS ON THE POWER WHICH ANIMALS HAVE OF RESISTING HEAT AND COLD.

Being informed that Dr. Cullen had taught that animal heat arose from a power in the animal of resisting cold and generating heat, I contrived a series of experiments to throw light on this subject. I made some to prove that an animal once frozen cannot be revived. Two carps, confined in a vessel with water in it, were frozen by immersing the vessel in a freezing mixture: on thawing them, no life remained. A dormouse was put in a vessel without water, and the vessel immersed in a freezing mixture; as the cold increased, it became uneasy, and coiled itself up to collect its heat: hoarfrost appeared on its whiskers from its breath, but the dry hair being a bad conductor of heat, only its head froze. I tried another dormouse, first wetting its hair: it was frozen, and on thawing it, it did not revive. A toad and snail were frozen in like manner, and the event was the same. See Phil. Trans., where these experiments are detailed. The result of them was, that when once living parts are frozen they do not revive.

The more perfect animals have a standard of heat; a degree of it which is more permanent in them. The less perfect animals vary more in their heat. Variations of heat occur, however, in the more perfect animals, and their variations occur more readily below than above the standard: animals in general having a greater power of resisting heat than cold. When heat penetrates an animated body, it makes an alteration in the position of parts, as it does in those of common matter. Sensation cannot arise without a change of the position

of parts. As a certain degree of heat destroys the texture of the parts, so very intense cold has the same effect; and when the structure of important parts is altered, life is extinguished. All elongated parts of the body are more exposed to cold and external heat than internal; as the toes, the fingers, &c. Habit has no small influence in regulating sensation. Parts used to considerable variation of heat and cold are less ready to be affected with either. The cuticle, as being a dead covering, generates no heat, and experiments on animal heat should not be made on it, for it will receive both more external heat and more external cold than living parts.

Variations of heat below the standard occur in the more perfect animals. Having provided a man who submitted to be the subject of experiments, I introduced the bulb of a thermometer an inch into his urethra, a part sensible and not habituated to great variations of external heat or cold: during a minute the mercury rose to 92 deg.; introduced two inches, (for a minute), it rose to 93 deg.; introduced four inches, to 94 deg.; and when pushed as far as the bulb of the urethra, where it was surrounded with warm parts, it rose to 97 deg.

Experiment 2. I immersed his penis in water of 65 deg.; then introducing the thermometer an inch and a half into the urethra, the mercury rose to 97 deg.

To see whether the more perfect animals lose heat in proportion to dead matter, I heated a dead penis to 92 deg., and immersed it and the living penis in water of 50 deg., applying the water only to the external skin of both; the living penis sank in its temperature to 58 deg., the dead to 55 deg., at which they continued. But living parts in the more perfect animals are not so readily heated above the natural standard. I put a dead penis heated to 92 deg., along with the living penis, in water of 118 deg.; the dead penis acquired 114 deg., while the temperature of the living rose only to 102 deg.; nay, the water immediately in contact with the living penis was cooled; so that the living body has a greater power of resisting heat than cold. The generating power cannot be roused by occasionally increasing the vigour of the constitution: I gave the same man a warm supper of roast beef with spices, and a bottle of wine; his pulse rose from 73 to 87 deg. But on introducing the thermometer into his body, the mercury stood at 97 deg., the standard. It appears from this experiment that the pulse may be quickened without the vigour of the system being increased, or at least without the generating power being increased.

Having exposed a dormouse to a cold air, 45 deg., for the space of fifteen minutes, I made a hole in its belly, and instantly put into it the ball of the thermometer; it pointed to 70 deg. when turned towards the intestines, and at 85 deg. when applied to the diaphragm.

I carried a healthy dormouse from its hole, where it was sleeping from the cold, into an atmosphere of 64 deg., and the thermometer being put in its belly, it pointed at 74 or 75 deg.; when applied to its liver the temperature was 81½ deg., and when applied to the heart 80 deg. From putting the same mouse back to its cold hole, and marking the effects, I found reason to conclude that the sedative power of cold suspends in the more perfect animals the voluntary acts; but that beyond a certain degree, and after the sedative

power has operated, the constitution is roused for the purpose of producing more heat. When an animal dies from cold, it seems owing to this, that life is expended in producing heat, carried off as fast as produced.

If sleep, the animal heat sinks about 1½ deg. I carried a strong mouse of the common kind into the cold air. By applying the thermometer the heat of the pelvis was 83 deg., and at the diaphragm 87 deg.; and having a mouse weakened by fasting in the same circumstances, and applying the thermometer, the heat in the pelvis was at 74 deg., and that of the diaphragm 78 deg., which shows that the generating powers were diminished from fasting.

Introducing the thermometer into the rectum of a dog, the heat was 100½ deg., in his stomach 101 deg. From the above experiments it appears that the different parts of a more perfect animal have not the same degree of heat; and that the vital parts possess the greatest heat: it also appears that the quantity of heat generated is according to the health and vigour of the animal. The above experiments were made on quadrupeds, which I consider as the more perfect animals along with man.

I next attended to the heat of birds, the chief of the more imperfect animals. I chose the common hen: the thermometer introduced into her rectum, the mercury rose to 103 deg.; the heat of a hen disposed for incubation I found to be no higher. From the above experiments it was found that the more perfect animals or quadrupeds have a power of generating heat and restoring cold; that they have a standard of heat, which fluctuates between 98 and 100 deg., that their heat can be universally reduced by the application of extreme cold, while it is hardly possible to raise it above the common standard by applying external heat; that the inferior animals, as birds, have naturally a greater degree of heat than quadrupeds, &c. An experiment made by Dr. Fordyce and some others further confirms that the system of the more perfect animals, and man in particular, has a power of resisting heat. They entered a room, the air of which was heated to 270 deg., and broiled beef steaks hung up in it, yet the heat of their bodies was hardly increased, though they remained eleven minutes in that air. This steady cooler temperature of the human body must be owing to a power constantly exerted to keep down the heat applied, or to a power of generating cold, and perhaps it may be more fatiguing to the system to oppose heat than cold.

Experiments on animals inferior to birds led to important conclusions. Vipers, frogs, &c.

Experiment 1. I put the ball of the thermometer into the stomach of a healthy viper, (the temperature of the air 58 deg.) and it rose to 68 deg. Then I put the animal ten minutes in a freezing mixture, and its heat fell from 58 to 37 deg.; keeping it ten minutes longer there, (the mixture 13 deg. below 0), its heat fell to 35 deg., and keeping it another ten minutes (the mixture now 20 deg.) its heat sank to 31 deg.; now it became weak, and its tail began to freeze. It did not become colder than 31 deg.

Experiment 2. On introducing the ball of the thermometer into the stomach of a frog it rose to 44 deg.; then putting the animal into the cold mixture the mercury fell to 31 deg., and the ani-

mal was almost killed: the cold of the animal could not be further increased without extinguishing life. In this case heat was reduced more quickly than in the viper.

FISH.—*Experiment 3.* The water of a pond, in which live carp were kept, being $64\frac{1}{2}$ deg., I took out one of the carp, and on introducing the thermometer into its stomach, found its heat 69 deg.

Experiment 4. A snail having 44 deg. of heat was put into a cold mixture, its heat sank to 31 deg., then the animal froze.

Experiment 5. Leeches in a bottle put into a freezing mixture, their heat sank to 31 deg., then they froze. In all these experiments, when the animal cooled down to 31 deg. froze, the temperature of it rose to 32 deg., and when once frozen, it could be cooled as far down as the mixture. From the experiments it appears, that below 32 deg. of vital heat the animal generates no more.

To see what degree of heat can be brought into a less perfect animal, I exposed a healthy viper to a heat of 108 deg.; on trying the thermometer in its stomach, it pointed to 99 deg. The same happened in a frog, and in this respect the imperfect animals resemble quadrupeds. In short, you cannot raise the heat of the body high enough to destroy its structure, but you may cool it down till you freeze its fluids, &c.

Experiment 6. An eel weakened by its heat 44 deg. was put in water 65 deg., and left fifteen minutes in it; its heat rose to that of the water, and no higher.

Experiment 7. A tench 41 deg. was put into water 51 deg.; on introducing the ball of the thermometer into its stomach, the mercury rose to 55 deg. These inferior animals, therefore, vary more in their heat than others.

Experiment 8. A living and a dead tench, a living and a dead eel, were all put in warm water; on introducing the thermometer into them severally, they all had acquired the same degree of heat; and on putting them into cold water, it was found that they all cooled with equal celerity.

Life is not peculiar to visible organization and spontaneous motions: there is a low degree of life which seems to consist merely in the power of continuing existence in a certain form. I was led to entertain this idea twenty years ago, from observing in my experiment on the progressive growth of the chick, that the yolk, the greatest part of which remains to the last hour of incubation, always continued sweet if the egg had hatched; but if the egg did not hatch, it became putrid like other dead animal matter.

An egg was frozen in a mixture at 0 deg., then thawed; it was afterwards put into a freezing mixture along with a new-laid egg of the same temperature: the frozen egg refroze seven minutes sooner than the other; a proof that the preserving powers were lost by the previous congelation. It appears that the living egg observes the same laws of heat with the imperfect animals.

An unfrozen egg and a thawed one were put into a mixture of 15 deg.; the thawed one cooled down to 31 deg., then swelled and refroze: the living one cooled to $29\frac{1}{2}$ deg., continued there twenty-five minutes, then rose to 32 deg., and froze. From these experiments it appears that a fresh egg possesses powers of resisting cold and putrefaction, equal to many of the imperfect animals: powers depending on the same principle in both. From

the experiments it also appears that the more imperfect animals have their heat and cold varied much in the proportion in which the heat or cold is capable of changing the position of their parts, i.e. much in the proportion in which common matter is affected with heat and cold.

Parts of animals, though frozen, revive. This was proved by several experiments.

Experiment 1. At a hole in the side of a vessel containing a freezing mixture at 0 deg., I introduced the ear of a rabbit, and confined it between two plates of iron, because these are good conductors of heat; the ear was frozen, stiff, dry, and rigid. On removing it into a warm air, it became flexible; warmth returned to it, and sensibility; only it thickened considerably; it was an hour in the mixture. A week after I introduced both ears of the same rabbit into a freezing mixture, in similar circumstances; both froze, the sound one first; on withdrawing them into warmth, both revived, but thickened, &c. In long frosts the edges of cocks' combs drop off, and the reason is this—these edges continue for weeks frozen, the living parts set to work, and separate the frozen part as if it was dead; but a part frozen only once or twice, continues connected with the living parts, and does not separate.

FISH.—I froze the tail of a tench; upon thawing it, it did not recover the power of action in it.

Experiment 2. Having frozen the tail of a gold fish, the tail became lighter, and the fish was suspended in the water with the head lowest. It died.

EARTH-WORMS.—Upon freezing the anterior half of an earth-worm, the whole animal perished; but freezing the posterior half occasioned a separation of this part; the anterior half remaining alive.

VEGETABLES.—We found that the living principle of animals is extinguished when we find their heat sinks lower than 32 deg. It is otherwise with vegetables; they in general sustain, without being killed, the cold of the country where they grow. In some northern regions, the cold is more than 50 deg. below 0 deg., yet there the spruce, fir, birch, &c. live. It is a curious fact, that while the cold of the tree, and of every part of it, is in cold seasons and cold climates below 0 deg., the sap does not congeal, and it is equally curious that if the sap is discharged from a hole bored in the wood, it immediately rises to 32 deg. Thus the sap, so long as it is contained in the proper canals, bears most intense degrees of cold unfrozen.

COURSE OF CLINICAL LECTURES

ON

SURGICAL DISEASES.

DELIVERED AT THE HOSPITAL OF LA CHARITE
BY PROFESSOR VELPEAU.

LECTURE V.

SORE THROAT, OR ANGINA.

GENTLEMEN,—One of the most frequent classes of disease that you will meet in private practice, or indeed in hospitals, are inflammations of the tonsils, palate, &c.; in a word, inflammatory affec-

tions of the mucous membrane of the mouth and throat. If you consult the opinions of our standard authorities upon the treatment of these affections, you will see that it is confined to revulsive and antiphlogistic measures, such as local and general bleeding, cataplasms, emetics, purgatives, &c. But this mode of treatment, gentlemen, often exercises but little influence on the progress of the disease, which runs its course, and terminates without our being able to say that our remedial means have had much effect on it.

When I studied medicine under my old master, M. Bretonneau, at the hospital of Tours, I was struck with the success which attended his employment of certain astringent substances in epidemic attacks of severe angina, and I was led to think that the same means might be useful in purely inflammatory sore throat. I therefore tried diluted muriatic acid, nitrate of silver, and alum, in simple sore throat, as M. Bretonneau and several other surgeons had tried them in croup, and the various forms of chronic angina. In the year 1819 I first tried the nitrate of silver; in 1828 and 1829 I employed alum with much benefit, and published a paper on the subject in the *Gazette Médicale* of 1830. In that paper I threw out the hint, that the use of alum might be much extended, and I cited the experience of M. de Laënnec of Nantes, who assures us that by blowing powdered alum on the inflamed amygdalæ, we not only reduce the tumefaction in a rapid manner, but prevent that tendency to relapse which is so characteristic of angina in general, when it has been treated by antiphlogistics. Finally, MM. Toirac and Guillon confirmed my ideas, by their experiments with the nitrate of silver made in 1826 and 1827. Since that time, gentlemen, the practical experience of M. Bretonneau has been sustained by various writers in the medical journals. M. Bennati read a memoir at the Institute, on the use of alum gargles in some chronic affections of the throat; but I do not think that any one hit on the plan of applying alum to cases of pure inflammatory sore throat. We may perhaps explain this, by the fact of the complaint being in general attended with little danger, and the idea which many medical men have, that irritants are injurious in all acute inflammatory diseases.

However, sore throat, though not a fatal disorder, is often a very severe one. The febrile symptoms which accompany it, the suffocation, secondary abscesses, and the loss of strength produced by evacuations and antiphlogistics, are circumstances which render it a complaint worthy of the practitioner's attention. On the other hand, if the inflammation run high, it is so little influenced by antiphlogistic measures, either in its duration or intensity, that we are fully justified in seeking for some more efficacious mode of treatment.

Besides, there is another question of very great importance connected with this one. Many medical men are at a loss when they would apply Bretonneau's treatment to croup, or to angina with effusion of false membrane, and this, because it is sometimes very difficult to distinguish simple and malignant angina from each other, at an early stage; but this difficulty is removed, if we can show that the same treatment is applicable to the various forms of angina; that variculous angina,

and the inflammation which attends scarlatina, are arrested by the use of alum, and even when suppuration has occurred, that it is abridged in a remarkable manner by this remedy.

Although, perhaps, it may be true that the experiments which I have recently made are not sufficiently numerous to put the question completely at rest, yet they seem to me so encouraging, that medical men should at least repeat them. The result of the treatment which I have employed was always the same. In all the cases, the inflammation had appeared suddenly, and was attended by fever; most of the patients commenced with the alum on the second day; the throat was then very red and painful, the tongue foul, &c.; some had arrived at the fifth, sixth, or eighth day, with high fever, redness and swelling of the face, considerable tumefaction of the amygdalæ, great difficulty of swallowing and breathing, thirst, &c.; in two cases suppuration appeared to be imminent. The treatment, as I have said, was the same in all cases, and consisted in the use of alum, either as a gargle or in powder. The tip of the finger, moistened, is to be covered with powdered alum, and then rubbed all over the inflamed parts, whilst the tongue is depressed with the handle of a spoon. The powder may be applied with a small brush, or a bit of sponge, &c. on the end of a little stick, or it may be blown into the throat with a tube; but the use of the finger is preferable, for with it the surgeon can readily reach every point of the inflamed surface, behind the velum pendulum, and even as far back as the entrance to the larynx; besides, an intelligent patient can apply the powder with his own finger, as I have often witnessed.

When a certain quantity of alum has been applied with the finger, the latter may be withdrawn, and a fresh application made, until the whole of the inflamed surface be covered with it, and, as a preliminary measure, the patient should frequently gargle his throat, to remove any mucus, &c. The use of the powder must be repeated twice or thrice a day, at equal intervals, and in the mean time the patient should frequently gargle his throat with a solution of one to four drachms of alum in four ounces of barley water.

In employing the alum after the manner which I have just described, we generally produce some nausea, cough, &c.; but these soon disappear, and the acrid taste of the medicine is also soon lost. The pain and febrile symptoms almost always diminish, in an evident manner, after the first or second application, and the patient improves so rapidly, that on the third or fourth day (and in some cases on the following day) he feels himself perfectly well. The most remarkable effect produced by this remedy is the rapid disappearance of the febrile symptoms, and the change in the tone of the voice; one would think that some deleterious principle had been suddenly neutralized, and the disorder reduced to a simple mechanical obstacle, from the increased volume of the affected parts.

In cases where the inflammation is mild, and the throat merely red without being swollen, the alum gargle will be sufficient; even in more severe cases the gargle will often succeed, but it is then more prudent to have recourse to the powder at once. Amongst the advantages of this mode of treatment, gentlemen, one of the greatest perhaps is, that it seems to remove the well-known tendency

of angina to recur; besides, the patient is not forced to lie in bed, and you may allow him some food without any inconvenience, as soon as he is able to swallow. Let us now relate to you some cases which demonstrate what I have said on the efficacy of alum in the treatment of inflammatory sore throat.

CASE I.—John Lepeyrac, 30 years of age, had never suffered from sore throat, when he was suddenly attacked, on the 8th of October 1833, with pain in the throat, accompanied by febrile symptoms. He was admitted into the Hospital of La Pitié on the 11th; the tonsils were then extremely swollen, and the man was unable to swallow; he was also very feverish; the uvula was red and inflamed in like manner. I rubbed my finger, covered with powdered alum, freely over the affected parts. In the evening the patient felt himself much better; the febrile symptoms had diminished; the amygdalæ were less swollen, and he wanted something to eat. On the 13th, the amygdalæ were so much reduced in size, that a finger could be passed between them; they were touched twice a day with the powder. On the 14th the patient was able to eat with great ease; alum gargles were now ordered. On the 15th the tumefaction had nearly disappeared, and on the following day the patient left the hospital quite well.

CASE II.—Marguerite Antoine, 22 years of age, was admitted into La Pitié on the 15th of October 1833; for the last three days she has laboured under sore throat, of which she has already had three attacks. The tonsils were greatly swollen, and of a deep red colour; the whole mucous membrane of the pharynx was likewise inflamed; the patient's skin was very hot, the pulse quick, and the deglutition much impeded. The alum was applied in the manner already described; on the 17th, the patient felt much better; the febrile symptoms had diminished; the alum was again employed morning and evening. On the 18th the patient was free from fever; and on the 21st she was able to eat some bread. She was dismissed cured on the 26th.

CASE III.—M. Nicolas was admitted into the hospital on the 6th of November for a sore throat which had existed for the last eight days. The mucous membrane at the back of the mouth was much inflamed, and the tonsils so large that they pushed back the uvula; there was a yellow point in the centre of the left tonsil. On touching this point, it was thought that suppuration had commenced, and it was opened with a lancet; some blood followed, but the size of the tonsil was not thereby diminished. The fever ran high during the day, and the patient had much difficulty in breathing; a gargle was ordered, containing two drachms of alum to four ounces of water. In the evening the man was less feverish, and he could swallow better. On the 9th and 10th the improvement continued. On the 11th another drachm of alum was added to the gargle. On the 12th the redness had almost completely disappeared; the tonsils were reduced in volume; the respiration and deglutition were freer; there was no fever. On the 15th the patient could swallow without the least pain, and on the 17th he was able to leave the hospital.

CASE IV.—M. A. G., inspector of the workmen employed at the Pantheon, being much exposed to cold and moisture, was attacked by sore throat, with fever, difficulty of swallowing, tumefaction of the tonsils, &c. The sore throat had existed for three days when I first saw him; the tonsils were then very red and tumid, and the back of the throat covered with yellowish patches. I ordered the usual gargle; on the next day I found that the redness had diminished, and the power of swallowing was more free; the tonsils were less tumid. He continued the strong alum gargle, and on the third day felt himself much relieved; the skin was now cool, and he could swallow fluids without any pain: the redness of the throat was nearly gone. The patient continued the same treatment for four days, and on the fifth was able to resume his ordinary occupations.

CASE V.—M. Pedilaborde, medical student, 23 years of age, had been much subject to angina tonsillaris. The affection had always been treated by antiphlogistics, but suppuration invariably ensued. He had a recent attack, with fever, intense headache, &c., and tried the alum powder, using alum gargles in the intervals. After the expiration of twenty-four hours he felt considerably less pain, and the act of swallowing could be performed with ease, although it was impossible before. In his former attacks the patient was always confined to bed for eight or ten days, but on this occasion he was quite well in three days.

CASE VI.—M. R., architect, had severe inflammation of the tonsils, with fever and great difficulty of deglutition. Antiphlogistic measures had no effect on the disease. He then tried a very strong alum gargle, and was quite well on the third day.

In another case, where the symptoms were just as severe, the patient recovered under the application of powdered alum on the third day also. M. Joannin, who has employed the same mode of treatment, has assured me that the rapidity with which it removes inflammatory affections of the throat is truly wonderful.

If the same success, gentlemen, should attend other practitioners in the experiments which they may be induced to make, the treatment of angina with alum would be a very important matter in epidemics; those who believe that croup and angina maligna are merely very severe degrees of common inflammation, might employ this remedy at the commencement; while those who see some special principle in the diseases which we have just mentioned, would also have recourse to it without hesitation. Even the patients themselves might employ the remedy without any inconvenience. Several inflammatory affections of the mouth are equally benefited by the use of alum; I have tried and experienced its efficacy in the sore throat to which young people are subject, and in the inflammation often excited between the last molar teeth and the inside of the cheek. Few people escape this latter affection at some period of their lives. When the wise tooth is not well developed, it often happens that the gum, or a portion of the mucous membrane of the mouth, is pinched by the tooth in the act of mastication, and a chronic inflammation, with pain and foul

breath, and a fungoid state of the parts, is excited; this readily yields under the use of alum; but you must be careful to bring the powder in contact with every point of the diseased surface. It is of some importance to attend to this latter precaution, because, unless you do, the treatment will fail, and the patient be very apt to attribute your want of success to the inefficiency of the remedy. I have frequently noticed this in private practice, where the patients were allowed to apply the powder themselves; or even in hospital practice, when the dressers were not sufficiently careful to rub every portion of the affected parts with the alum. Hence I would conclude with this precept, that the success of the treatment which I have recommended to your notice depends rather on the manner in which it is employed, than on the extent of the disease. I have tried it myself in a great number of cases, and always found it to succeed.

CASES

FROM THE EARLY NOTE BOOKS OF

SIR ASTLEY COOPER, BART.

EXTRACTED WITH PERMISSION OF E. B. COOPER, ESQ.

No. III.

INGUINAL HERNIA—OPERATION—ARTIFICIAL ANUS.

ANN TENNANT, aged 34 years, was brought into St. Thomas's Hospital at about 10 A.M. on the 17th of May, labouring under pain at the scrobiculus cordis, hiccough, vomiting, and constipation—an erysipelatous inflammation in the left groin, with a little fulness on the outer side of the tuberosity of the pubes, and below the crural arch; painful when pressed upon, and with a pulse thready, quick, and irregular. The swelling, nausea, and constipation, she first observed on the 13th, and she was not conscious of any hernia having existed before that time.

Yesterday (the 16th) an injection was administered, after which a little hardened faeces passed away, and was repeated in the course of the day, but without any additional feculent discharge. About twenty-six ounces of blood were taken from her arm soon after her admission into the hospital, which, when concremented, exhibited a white coriaceous surface. She was put into the warm bath. She is three months gone with child. I saw the patient at twenty minutes after 1 P.M., and at ten minutes before 2 P.M., in consequence of Mr. Chandler's not coming, proceeded to operate.

I found the intestine mortified, of a grayish and venous colour, and therefore made an incision into it of about an inch and a half long, through which liquid faeces immediately passed out. Ordered a common poultice to be applied, and she was carried to bed. I was informed that after the operation the pulse fell as low as 48. At about one hour and forty minutes after the operation, the pulse was moderately full, strong, and about 73. Sickness gone off. She says the pain is removed from the scrobiculus cordis to the groin.

8 P.M. Pulse 100, and full, sometimes beating twelve or twenty pulsations regular, with then a

stop, and sometimes beating irregularly for several pulsations together. The nurse says she hiccoughed twice after the operation as they carried her along the ward, but that she has not observed her do so since. She complains much if the inflamed surface be touched, but no pain is produced by pressure on any other part of the abdomen.

Considerable discharge of faeces from the artificial anus. Skin hot. She is much disposed to sleep.

May 18, 1 P.M. Slept tolerably well during the fore part of the night, but about midnight was attacked with return of pain in the scrobiculus cordis, sickness and hiccough, which still continue, with vomiting a little into her handkerchief or other thing at hand. The abdomen is become tense and painful, and the pain about the artificial anus where it is covered with an erysipelatous redness, is increased; pulse 100 and irregular. No alvine evacuation per rectum. The discharge of faeces by the artificial anus unobstructed. She is very much troubled with flatus and considerable hiccough to-day.

19. Pulse less irregular, continues above 100; but little sickness; no hiccough lately; no stool by the natural passage, free discharge by the artificial anus. Less inflammation about the wound, to which the acetate of lead solution is applied.

20. Pulse still irregular. Free discharge by the artificial anus; erysipelatous inflammation in the groin diminished. A little eminence has appeared about an inch from the internal ring, in a line towards the umbilicus, which is very painful when pressed upon. Slept for about five hours last night; tongue white; skin cool; countenance natural. No miscarriage has taken place since the operation.

21. Pulse and discharge as yesterday. The circumscribed prominence still continues, but not so tense or painful when pressed upon; it appears to contain matter which is slowly discharging itself at the opening in the groin. The erysipelatous inflammation diminishing; the diet has been hitherto barleywater, tea, and toast, but now a little wine, rice-pudding, and calve's-foot jelly are given her.

23. The portion of mortified intestine has sloughed away, and the wound looks clean.

25. Pulse slightly irregular; tongue clean; she passes flatus per rectum. No tension of any part of the abdomen, or pain when pressed upon; appetite tolerable; no wasting of flesh since the operation. She was attacked about three o'clock this morning with violent pain at the scrobiculus cordis; it was not accompanied with any sickness. It lasted only a few hours, and she now feels comfortable.

28. Had a discharge of hardened faeces per rectum the day after last report, and again this morning, but not accompanied with any liquid faeces. No return of pain in the scrobiculus cordis; discharge by artificial anus free; pulse about 70, and regular; tongue clean.

30. Had last evening a discharge of faeces, similar to the former, per rectum.

June 2. Had yesterday a fourth stool per rectum, and another to-day.

3. Great pain about the umbilicus last night, increased by pressure; profuse discharge from the groin; she now feels easy.

4. A discharge of faeces per rectum this morning, (the sixth.)

7. Great discharge of liquid fæces by the artificial anus, and complains of itching about the abdomen. The wound in the groin diminishes in size; ordered it to be dressed superficially, and slight pressure to be applied; gave her an emetic to check the diarrhœa.

8. A scanty stool this morning; the diarrhœa is checked.

10. The pressure ordered on the 7th has not been applied; the wound has been dressed with a cerate spread upon tow, which has produced considerable inflammation around the wound. Ordered lint to be applied to the wound.

18. Had her 10th stool per rectum to-day. In the last four or five days she has had the ordinary house diet. Going on favourably.

20. The orifice in the groin is much diminished.

24. A stool per rectum every other day. The only discharge which she has had from the artificial anus for the last four days, took place yesterday morning after walking down stairs to the ward beneath; this ceased in the evening, and has not since recurred. Pressure was applied on the 21st with a truss for three hours; the weight of the pad, however, produced smart pain, but no sickness; in consequence of this inconvenience, the truss was taken off, the pad rendered lighter, and it was then again applied.

26. Found her dressed and sitting on the side of her bed. There has been no discharge since the 23rd from the artificial anus. At the time when the discharge from the artificial anus was constant, she found it became increased in amount by lying on her back, but that position does not now lead to any discharge.

When the surface surrounding the wound was inflamed, she found relief from the application of the acetate of lead solution, but she substituted for it, of her own accord, Fuller's earth, which she says keeps it cooler.

The wound did not completely heal until the middle of August. She wears a truss. Her pregnancy has continued without interruption.

She was brought to bed in October of a living child, which is since dead, and she has since that period miscarried.

LITHOTOMY—WRONG DIRECTION OF THE GORGET.

Mr. F—, in operating for the stone, pushed the gorget between the bladder and the rectum. After making many ineffectual attempts at extraction, he asked me to examine, and I found that the stone was enclosed in the bladder, which was still unopened.

It was obvious that he was between the bladder and the rectum, from the distance that the forceps could be passed, nearly to the kidneys. The bladder was not opened—no urine had escaped.

That the stone was in a bag was proved by this—that when it was taken hold of, a membrane could be felt moving over its surface.

When I passed in my finger, I found a small opening above that by which the forceps had been repeatedly introduced—into this I passed the gorget, and immediately the urine escaped.

The forceps were now passed and the stone taken hold of, but the wound being too small for the extraction of a very large stone, which this was, I dilated it with Pott's bistoury. The man died.

LITHOTOMY—DIFFICULTY OF SEIZING THE STONE.

A lad was cut for the stone by Mr. L—; although he opened the bladder, and the stone could be felt, he could not take hold of it with the forceps. I took the forceps, and proceeded to attempt to seize the stone, by opening them first at the inferior part of the bladder—the stone was not there; then at the middle—it was not there; next at the upper part, where it was enclosed in a fold: here I got hold of it, and the stone was extracted. The child did well.

The following remarks occur after the above cases.

In sounding, the sound must be proportioned to the size of the patient.

The stone may be felt most distinctly at one time, and not at all at another,—if the bladder is empty—often being caught in a fold which conceals it—but if full, it usually falls to the inferior part.

The position of the patient being varied, will sometimes give an opportunity of feeling the stone.

The cutting gorget, if made with a very small beak, is liable to be passed through the back of the bladder, which I have seen happen in the dead subject.

The forceps should each time be passed in with a gorget, otherwise they are apt to be passed between the bladder and rectum.

The external incision should be large, and not too much on the side. It should just clear the anus and no more.

DELIRIUM FROM TAKING A LARGE QUANTITY OF MERCURY.

Mr. A—, from the use of a very considerable quantity of mercury, had an attack of delirium, with most excessive irritability. A dose of salts, which produced four evacuations, removed it in fourteen hours.

[The following incidental remarks on insanity are interesting.]

The most frequent cause of this disease is a slight paralytic affection which occurs in very irritable people. One-third of those who suffer from this disease are affected from this cause.

Religion, or false impressions with respect to futurity, is a frequent cause. Love but rarely occasions it.

Intemperance often produces it. Young men who are taking mercury and drinking hard, are frequently subjects of it.

Those who are disposed to this disease have generally a white tongue, and are of a costive habit. They are subject to a sense of tightness across the forehead, to weakness of digestion, and a sensation of sinking, during which it is difficult for them to resist destroying themselves.

The men are generally not lascivious, and often incapable of the copulative act; they are, however, much disposed to self-pollution, and this may be the cause of the former imbecility. Women are libidinous, and often exceedingly indecent in their remarks.

Guarding against costiveness, and giving gentle stimulants, are the means most likely to prevent this disease.

As they are fond of solitude, society should be advised and enforced.

Bleeding and copious evacuations, during a fit of insanity, are improper. A large dose of opium I have seen useful.

If a person has fear on any particular subject, the exposing him to the danger is often the means of removing the fear entirely—thus, if he is afraid of water, the taking him on it will be the proper treatment.

Constant employment should be found for one who has a disposition to this disease.

A blister applied over the head sometimes gives relief instantaneously in cases of insanity. A boy, a patient of mine, by a fall on board a ship, fractured his thigh, and from that time showed symptoms of mental derangement, talking incessantly and incoherently, and yet capable of giving a distinct answer to any question. He laughed, cried, and swore, and all within a few moments. He was bled repeatedly without relief—both largely and in small quantities. He had also physic to open his bowels; opium was also tried, but he became no better. A blister was applied to his scalp, and in twenty-four hours he was rational, but so extremely weak, that although in his delirium of the preceding day he appeared to be equal to any exertion, yet to-day he is scarcely capable of raising his hand to his head.

CASE OF DROPSY OF THE AMNION.

BY JONATHAN TOOGOOD, ESQ.

SENIOR SURGEON TO THE BRIDGEWATER INFIRMARY.

IN November, 1830, Dr. Robert Lee read a paper before the Medical and Chirurgical Society, on the pathology and treatment of dropsy of the amnion. I apprehend this must be a rare disease, having only seen one instance of it in the course of my experience, and as it was complicated with ascites and anasarca of the mother, the particulars may be found interesting.

On the 27th of May, 1830, I was requested to meet Mr. Davidson in consultation, at Mary Cawes', of Pawlett. She was between the sixth and seventh month of her pregnancy, and suffering from general dropsy to such a degree, that Mr. Davidson considered the only chance of affording relief was by tapping, which operation he was prepared to perform on my arrival. I satisfied myself of pregnancy, and although she was greatly swollen, and suffering much from dyspnoea, I could not sanction his proposal, and recommended diuretics and opiates. On the 30th, she was reported to be somewhat relieved, but the lower extremities had become more cedematous. On the 2nd of June, she was stated to be suffering so much from oedema, vomiting, diarrhoea, and most distressing dyspnoea, that her medical attendant represented it not only improper, but dangerous, to delay the operation any longer. I found her in a deplorable situation, the swelling had increased very much, she could keep nothing on her stomach, nor could she lie down for an instant; the pulse was weak and fluttering, the abdomen was distended to the utmost; the fluctuation could not only be distinctly felt, but absolutely seen, the parietes of the abdomen had become so thin. It was evident that immediate steps must be taken for her relief; and

so satisfied was her adviser of the rapid increase of all her symptoms, and immediate danger, that he again proposed, and strongly urged, that a trocar should immediately be plunged into the abdomen. I could not recollect to have seen any account of such cases, which would have enabled me to have determined my practice with greater confidence, (Dr. Lee's paper had not been published at that time); I proposed the induction of premature labour, and at 4 o'clock in the afternoon ruptured the membranes with a male catheter. Two hours after I felt the funis presenting, and left her in Mr. Davidson's care, from whom I learnt on the following morning, (Thursday,) that she had been delivered of a small foetus at 12 P.M., and that the abdomen had subsided a good deal. On the following day, (Friday,) I received a note from him, which I copy in his own words:—"I beg to inform you that the poor woman Cawes has been delivered of a second foetus this morning, when I was called to her, and found her in hard labour, with the membranes very much distended, which I instantly punctured, when upwards of ten or twelve quarts of water were evacuated, succeeded, of course, by a complete subsidence of the abdomen. The issue shows the difficulty attending the diagnosis of such morbid appearances." The placenta were not brought away until late on Saturday night, and then partially only, and it was not until the Tuesday following that the whole was expelled; there was no hæmorrhage. She had a good recovery, has been quite well, and borne children since. In speaking of ascites during pregnancy, Dr. Burns says:—"If, in spite of treatment, the swelling increase, paracentesis must be performed, and I am surprised that there ever should have been a moment's doubt as to its propriety, for there certainly can be none as to its safety." This appears to me a bold assertion. Cases have occurred in which a trocar has been incautiously plunged into the uterus in ascites during pregnancy, with fatal effect; and judging from this, in which the parietes of the uterus were rendered so thin by the great accumulation of water, as literally to make the fluctuation evident to the bystanders, by gently striking the abdomen, it appears to me sometimes difficult, if not altogether impossible, to determine whether the fluid be contained in the abdominal or uterine cavity, and the mistake would most probably be fatal.

In the tenth volume of the *Medico-Chirurgical Transactions*, a case is related of a presentation of a bag of water after delivery. This is the only case I have seen recorded, but I had met with a similar one in my own practice some years before. The labour had been a protracted one, and in the early stage a large quantity of liquor amnii was discharged by the sudden rupture of the membranes. In this, as in the case referred to, the placenta was retained, and after waiting a full time for the expulsion, I passed my hand, and found a large bag of water, which puzzled me much, feeling assured from the diminished size of the uterus, that there could not be a second child; but on pursuing my object, I found the placenta closely adhering to the side of the uterus, from which it was detached with difficulty. Retention of the placenta occurred in three subsequent labours of this lady, but nothing unusual happened in either.

Bridgewater, April, 1841.

PROVINCIAL
MEDICAL & SURGICAL JOURNAL.

SATURDAY, MAY 22, 1841.

As the period is now rapidly approaching at which the annual meetings of the branches of the Provincial Association are usually held, it may not be considered out of place, if we take occasion to draw the attention of the members of this great and flourishing institution to the important influence which as a collective body they have it in their power to exercise. The *vis unita fortior* is a principle too well established to require illustration, and it only remains that the energies and power of the Association should be steadily directed towards the attainment of wise and beneficial ends, to ensure all those advantages, both to its members individually, and to the Medical Profession collectively, which are attainable only by the persevering efforts of numbers. In the endeavour to point out those channels into which, as we conceive, the influence of the Association may be beneficially directed, we cannot, perhaps, more effectually express our object than by a recurrence to the fundamental principles upon which the Association is constituted. These are, 1st, the collection of useful information, whether speculative or practical, through original essays, or reports of provincial hospitals, infirmaries, or dispensaries, or of private practice. 2nd. Increase of knowledge of the medical topography of England, through statistical, meteorological, geological, and botanical inquiries. 3rd. Investigations of the modifications of endemic and epidemic diseases, in different situations, and at various periods, so as to trace, so far as the present imperfect state of the art will permit, their connexions with peculiarities of soil or climate, or with the localities, habits, and occupations of the people. 4th. Advancement of medico-legal science, through succinct reports of whatever cases may occur in provincial courts of judicature. 5th. Maintenance of the honour and respectability of the profession, generally, in the provinces, by promoting friendly intercourse and free communication of its members; and by establishing among them the harmony and good feeling which ought ever to characterize a liberal profession. An inspection of the published Transactions of the Association will evidence how far these objects have been respectively attained, and we believe that with respect to the fulfilment of each of them, it will be found that the Association has not been backward. Many excellent

essays and interesting cases have been collected and published, together with several elaborate reports from various sources; the subject of medical topography has been enriched by comprehensive and accurate accounts of some of the more important districts; investigations have been proposed and promoted into those epidemic diseases which have attracted attention within the period over which the operations of the Association extend, and at least one very important contribution to medico-legal science appears in the Transactions. How far the Society has been instrumental in the attainment of the fifth object proposed, may be gathered from the account of the proceedings of the Association at the anniversary meetings prefixed to each successive volume. The maintenance of the honour and respectability of the profession generally in the provinces has been constantly kept in view, and, as we endeavoured to show in an article in one of our recent numbers, has been sought to be attained in every way which came before the Association, whether by the general meetings, by the council, or by committees appointed for the express purpose. The anniversary meetings have hitherto been greatly instrumental in promoting friendly intercourse and free communication among the members; and it may be observed, that the establishment of the branch associations has not a little tended to foster and encourage this beneficial intercourse, and to promote kindly and social feelings among such of the members as, from local situation or other circumstances, are unable regularly to attend the anniversaries of the general body. That harmony and good feeling ought ever to characterize the intercourse of the members of a liberal and enlightened profession, will not be denied even by those insidious spirits who, for interested purposes of their own, exert every means in their power to scatter the seeds of dissension. In the discussion of the exciting subjects which now engage the thoughts and employ the energies of several of the active members, it is to be expected that diverse and opposing views will be taken. In such a crisis, in the strife and contention which necessarily accompanies such a state, there will always be found those whose very existence is in the turmoil, and who find a congenial element in the discord, the baneful influence of which it is their delight to foster. We would, however, fain see a better spirit preside over the meetings of the Provincial Association; we will hope that while the most unreserved and open discussion shall take place and be encouraged on the question of Reform, the spirit in which such discussion is conducted shall be an amicable one; that those who

differ shall respectively give their opponents credit for uprightness of intention, and be disposed to view with indulgence the errors of judgment to which every man is liable. The able and temperate article on the Reform Question, to which we give insertion in this number, challenges the attention of every member of the Association. It is the production of one of our most esteemed members, and of one who, from his long consideration of the subject, is able to grapple with all its details, and at the same time to take a comprehensive view of the entire question. In making these remarks, we would not be thought to do more than solicit for the communication a calm, unbiassed, and attentive consideration. We do not hereby pledge ourselves to the approval of all or any of the views advocated; and in like manner are not desirous of giving it more weight with others than it is justly entitled to. But we claim for it, as we have said, attentive consideration. The error which has hitherto pervaded much that has been done relative to Medical Reform, has been a too great haste in the devising of the specific plans upon which such reforms should be conducted. It is true that the evils and abuses attendant upon the existing state of affairs, and the grievances under which the individual medical practitioner labours, have been pointed out, and that certain principles have been laid down and recognized; but beyond this there is little agreement amongst those who should take the lead; and until further consideration shall have paved the way, smoothed down the asperities of contending opinions, and blunted the edge of conflicting interests, to expect the attainment of a measure which shall ultimately prove satisfactory and beneficial to the great body of the profession, is visionary in the extreme. We have before observed, and we repeat the observation, that hasty legislation is worse than no legislation at all; but the calm and temperate discussion, first of principles and then of the modes in which these principles should be carried out, is most desirable. Let such discussion be carried on on the footing and in the spirit which has hitherto characterized all the proceedings of the Provincial Association, and good must ultimately result. And while we are desirous that this end should be attained, we are equally desirous that the other leading objects of the Association should not be lost sight of. We trust that the Association and the branches, at their approaching meetings, will not cease to remember that in the promotion of the science and the improvement of the practice of medicine, as well as whatever relates to medical polity, they are looked up to, to support the character and maintain the station of the provincial practitioner. While, therefore, they continue to direct their best

energies to the attainment of the one, we still look to them to pursue the onward course which has been so well commenced in respect to the other. However highly the exertions of the Association, or of its influential members, in the cause of reform may be esteemed, it is by investigations carried on in the spirit of its topographical papers, by the practical information conveyed in its essays and cases, by such researches as those on vaccination, that its character and influence as a scientific body must be tried. These are the grounds upon which the Association must claim for itself the estimation of the public, and the gratitude of suffering humanity; and it is through such acts as these that its reputation will be extended beyond the limits of the medical profession, or the country in which it flourishes. The organization and reform of the medical institutions of the country upon equitable and liberal principles is, indeed, an object worthy of attainment; but the advancement of knowledge, and the increase of our resources in the management of disease, should be the especial aim of every member of an Association of Medical Practitioners, who are professedly united together for these express purposes.

ON

MEDICAL REFORM.

THE following article on Medical Reform, which appeared in the "Morning Chronicle" of the 6th and 12th of March, seems to us so lucid in its expositions, and so conclusive in its arguments, that we gladly reprint it for the benefit of our readers; in the hope that views of reform, at once so moderate and so just, may lead to greater uniformity of opinion among the profession on this most important subject than has hitherto prevailed.

We have occasion to know that this paper was written by a zealous member of the Provincial Association, for the express purpose of opening the public mind to just conceptions on this question; we therefore earnestly recommend his exposition to attentive perusal and grave consideration.

OF subjects rendered familiar by the daily intercourses of life, there is none, perhaps, on which people reflect so little, or of which their conceptions are so vague and indistinct, as the relation in which they severally stand to the medical profession. In this profession all have a personal interest, for, sooner or later, all have occasion to resort to its aid. Without health life is a burden, and few escape those visitations of disease, by which, if not promptly counteracted, its span is shortened. Have not all, then, an interest, and a deep one, in this profession being so constituted

that every individual who undertakes to discharge its duties shall have his competency to fulfil them fully proved? To this question a negative reply will scarcely be given.

How comes it, then, that when the qualifications and duties of the profession become the theme of discussion, so few are found who have any clear conception of them, or are prepared for exercising any rational judgment respecting them? To answer this question as fully as it deserves, would exceed our present purpose; and we must wave it in order to pass to considerations of more immediate urgency. It would not be difficult to trace the inaptitude for judging to which we allude, to deficiencies in education which fails to include, in the ordinary course of juvenile, nay, of adult instruction, any knowledge of animal physiology—a species of information which, in practical value and utility, far surpasses many of the studies in which so large a portion of the best years of life is usually expended. Were the public but moderately informed on the structure and functions of their own frames, there would be little need of argument to show that they who profess to rectify the derangements of health, should have a competent knowledge of that complex and delicate mechanism, its intimate nature, habitudes, and susceptibilities—the movements of which they undertake to direct. Were such the case, every educated individual would be capable of detecting the false pretensions of the charlatan, and quackery would soon cease to exist. Of the low state of education no stronger evidence could be adduced, than the unblushing effrontery with which quackery of the grossest kind palms its palpable falsehoods on public credulity.

However imperfectly the subject may be understood, or however unprepared the public may be for judging it in all its bearings, still it will scarcely be denied, that they who profess to take charge of the public health ought to have some qualifications, and that there should be some guarantee for these beyond what the mere assumption of the individual practitioner supplies. If the necessity of qualification be admitted, then must the extent and proofs of this merit the most profound consideration which the legislature, as guardians of the public welfare, can devote to them. This subject we shall endeavour to illustrate; and, in order to bring what we have to say within the narrowest compass, we shall arrange it under the following heads: and first, show the close connexion and mutual dependence of the several branches of the healing art—deducing thence the necessity of a uniform primary qualification; secondly, display the inefficiency of existing legislation and of the present medical institutions for securing this desirable object; and, lastly, indicate the measures which would be really efficient for this end.

In such an inquiry the first object is to determine what the medical profession really is, and what it embraces. We are accustomed to contemplate physicians, and surgeons, and general practitioners, and apothecaries, and even druggists, as severally part and parcel of the medical profession; and it is true that in the aggregate they comprise all that this profession includes.

But does any one of these branches, as hitherto constituted, necessarily comprise all the knowledge that every person professing to practise physic in any of its branches ought to possess?

Assuredly not; for great and glaring deficiencies, so far as testified knowledge is concerned, exist in all. If the individual practitioner, whatever his grade, has supplied to himself what his initiatory courses of instruction left deficient, the merit must be awarded to his own exertions, and to the high-toned moral feeling which called them forth, and not to the system which introduced him to the profession.

The object of medical care is to preserve health and cure diseases, both internal and external. Whether the disease be internal or external, it is the same body that is affected; the same natural laws govern the whole—the same susceptibilities of morbid impression pervade the whole—and on the same principles of pathology are the derangements of every part to be treated. Many a disease of external parts has its source in internal deviations from health, and can only be effectually remedied by correcting these. By this truth, long overlooked, modern surgery has largely profited; and, to the credit of modern surgeons be it spoken, all worthy of the name are, at the present day, careful to conjoin medical with their surgical knowledge. In point of fact, it is by their medical, much more than by their surgical practice, that the greater part subsist; and hence it is indisputable that their primary qualification should attest the competency of their medical knowledge as well as of their surgical. It is a solecism the most preposterous, to qualify a man, as is now done in surgery, and then send him forth to the community to practise in all diseases, the far greater portion of those which he will have to treat being not surgical; it long proved a mischievous solecism, and would be still so, were it not for the self-education in medical knowledge for which modern surgeons assiduously and most meritoriously labour. Even cases purely surgical cannot be judiciously treated unless the practitioner possess the knowledge both of surgeon and physician. Away, then, with the distinction which would separate these branches as if they were essentially different, and would qualify each in conformity with the contracted sphere of its supposed operations. What has been said of surgeons who practise their art without full medical knowledge, applies equally to physicians who engage in their own branch without a competent knowledge of surgery. No physician ignorant of surgery can be qualified or competent to practise his own branch of the art; for diseases, apparently medical, often prove to have their origin in lesions cognisable only by surgical scrutiny; and if these lesions be, even for a short time, overlooked, the life of the patient will pay the forfeit of the physician's lack of surgical knowledge. If, then, surgeons require to possess medical knowledge, and physicians surgical, what possible reason can be assigned why each species of practitioner should not be primarily tested as to his knowledge of both branches; or why both should not emanate from one common source? Let not those to whom the consideration of this subject is new here take alarm, or imagine that, by advocating similarity and uniformity of qualification, we contemplate reducing all to one common grade, and that the lowest. Were we to entertain so insane a purpose, the course of nature would counteract the vain design; for well do we know that nature confers intellect in every degree, from the humblest to

the highest; and as well might we attempt to imprison the winds of heaven, as to chain down the latter to a legislative standard. Distinctions there ever will be, so long as the higher faculties of the human mind impel their possessors to soar into those higher regions which are their proper element; and no legislation could prevent their asserting the powers which the Creator had conferred on them; for the exercise of which powers a higher grade, open to all, should be provided.

By the proposed consolidation, even the distinction of physician and surgeon would practically be no way affected, for the mental powers more particularly suited to each branch are differently bestowed; and each individual, however qualified by his education for practising in both branches, would inevitably incline to that for which his natural capacity most fitted him, and be deemed by the world either physician or surgeon, according to his natural gifts and the use to which those were directed.

In order to comprehend this subject, however, some retrospect is necessary for showing how the divisions of medical practice which have so long obtained sprang up, and were fostered; and also how they still nominally hold their ground, when the progress of social improvement has, in fact, all but annihilated them.

The distinction of physician, surgeon, and apothecary, is of old date; and here, as in many other instances, the veneration for antiquity has clung to forms long after the substance on which they were originally impressed, had undergone essential change. These forms, originating in accident, became modified by the progressively increasing wants of the community; and of late years a state of utter confusion has sprung up in the profession from the public necessities forcing supplies which the constituted medical authorities had failed to provide, as was exemplified when a company of apothecaries was deputed by law to qualify its licentiates as medical practitioners. To this subject we shall return; but we must first trace briefly the progress of the profession, from its earliest recognition to the period when the Apothecaries' Company had this novel function assigned to them.

When learning revived, after what had been called the dark ages, all literature centered in the Church, and the monks, who alone were capable of profiting by medical records, were, in consequence of the knowledge so obtained, the first physicians. Such secular employments, however, were jealously viewed by their clerical superiors, and their medical practice was so far impeded that they were restricted to giving medical advice in their cloisters only. In this exigency they employed their barbers for communicating with those who could not attend them, and also for performing certain operations from which they were themselves prohibited. From this germ sprang the class of practitioners, long and extensively known throughout Europe—the barber-surgeons. The struggles of surgery for severing this mis-alliance were slow in succeeding, for even in England the surgeons and barbers were not divorced until 1745, when the 18th Geo. II., c. 15, decreed the separation. It was not until 1800 that the surgeons were subsequently raised to the dignity of a Royal College by 40th Geo. III., so that the elevation of surgery to the rank which it now holds, is comparatively of recent date.

In the progress of the profession thus briefly sketched, in the practice of physic by the monks and their successors, the adoption of surgery by the barbers, or in the changes which latter times have produced, it is impossible to recognise the operation of any principle like that which leads to the division of labour in other arts. All was forced, all compulsory; and, consequently, the separation of physic and surgery, as distinct arts, receives no sanction from its having resulted from natural causes, or originated in any tendency which it had to minister to the public welfare. We have shown that physicians and surgeons require equally to be instructed in all branches of medical and surgical science; and needing, as they do, the same primary qualification, we can conceive no valid reason why the state, in making legal provision for this, should not ordain it to issue from one and the same source.

We would here guard ourselves against being misunderstood. We have no wish to interfere with the destination of medical practitioners, nor with their choice of the department of practice, whether medical, surgical, or both these conjoined, to which they may respectively most incline, or in which the public may most need their services. But as all require essentially the same knowledge, and as none should be suffered to practise who do not give proofs of their possessing it, we would provide that the legal licence to practise should be to the public a full attestation, that all who possess it are proved as to the competency of their qualifications in every branch of the art; and as this end can never be attained so long as licences are derived from the various and discordant sources whence they are now obtained, we would, so far as the grant of a legal licence is concerned, limit the issue of this to one examining and licensing board for each division of the kingdom, there being no other mode by which the requisite uniformity and competency of qualification can be effectually secured.

For aught that we contemplate, surgeons and physicians may continue to attach themselves to whatever institutions they please, and call themselves by what denomination they like best. All that we would contend for is, that whencesoever issuing, or however denominated, all should undergo their final ordeal before the national examining and licensing board, and receive from it their licence to act as medical practitioners, this licence empowering them to exercise their art how and where they think fit. By such measure alone can the natural unity of the profession be adequately established, this not being recognised by any one of the medical institutions now existing.

We next proceed to show the utter unsuitableness of the existing laws, and of the present medical institutions, for the attainment of this end. The consideration of the existing laws need not detain us long. Those relating to the physicians' department are so antiquated that a mere reference to their date must suffice to mark their insufficiency, the latest statute being the 1 Mary, a. 2, c. 9, passed in 1553, nearly three centuries ago! The acts of the London Colleges of Surgeons were passed for purposes solely respective of surgery, that of 1745 having for its object to disunite the surgeons from the barbers; and that of 1800 incorporating the surgeons in a Royal College, the design of this incorporation being to advance the

science and art of surgery as a distinct department of the profession of physic. It must be obvious that a corporate body so constituted cannot be fitted for superintending the interests of the collective profession. The apothecaries have not been overlooked by the state, a favour similar to that granted to the surgeons in 1745 having been conferred on the apothecaries by the 13 Jac. I. (1615), which separated them from the grocers. They continued to administer their affairs as apothecaries down to 1815, when, from the extension of their practice as medical practitioners—an extension forced on them by the wants of the public not being otherwise supplied, new functions were assigned to them by law, and the 55 Geo. III. (1815) empowered them to qualify their licentiates as practitioners of physic. The history of this enactment suffices to show that it sprang, not from any deliberate conviction of its suitability, but from the urgent necessity of meeting a public want, which those corporate bodies that ought to have provided for it disdained to supply. The public stood in need of a general practitioner,—that is, of one who could officiate in all the departments of the profession, and dispense medicines as well as prescribe. This species of practitioner, which had sprung up insensibly, got to such an extent, that the formal recognition of this new department became indispensable. The department was filled by apothecaries practising physic, and by surgeons dispensing medicines. Some better adjustment of it was imperatively demanded. The rational mode of proceeding for legally qualifying the general practitioner, would have been to engraft on the higher branches of the profession so much of pharmacy as would have qualified the individual practitioner for dispensing medicines to his own patients, this being what the public necessities required. But the medical corporations thought otherwise; or rather they so much disdained any connexion with pharmacy, however slight, that, yielding to this repugnance, they declined taking any part whatever in qualifying the general practitioner, relinquishing this whole department to the Apothecaries' Company, and not even condescending to protect from the operation of the Act of 1815 the well-educated surgeons, who, antecedently to this enactment, had the undisputed privilege of combining pharmacy with their higher practice. A more signal instance of stolid supineness could not well be exhibited than the neglect of the College of Surgeons on this occasion to protect its licentiates from the restrictive clauses of the Apothecaries' Act, as it needed only to ask such exemption to have ensured the willing assent of Parliament, and even of the apothecaries, who would not at the time have presumed to dispute it.

This conversion of the Apothecaries' Company into a board for qualifying medical practitioners, presents nothing to mark its suitability for the new duties so assigned to it. And here, at least, there is no antiquity to plead, no prescriptive right to be defended. This company has been officiating in its new capacity for the brief period of only twenty-five years, and can have acquired no privileges to stand in the way of more suitable arrangements.

A mere reference to the number of institutions from which testimonials of medical qualifications now issue, would suffice to show that any attempt to enforce or maintain among them equality of

uniformity of system must be utterly hopeless—no possible supervision being capable of insuring such a result. Why any such uncertainty should be hazarded when the simple expedient of conferring the licence to practise by one National Board is so readily available, it is difficult to conceive. Dr. Kidd, in his late excellent tract, specifies nine universities and eight other corporate bodies which now examine and grant licences.

It must here be remarked, that not one of those vouches for the full qualification which every practitioner ought to possess, or can grant the full licence which every duly qualified practitioner ought to receive. A national board, properly constituted, would ensure the full qualification, and grant the full licence. The infinite superiority of such an arrangement over any that would entail the necessity of watching the proceedings of eighteen or nineteen separate boards, is so obvious that it must be admitted by every unprejudiced mind.

The means by which the legislature could, with perfect ease, give to the profession the constitution suited to its nature and its wants, are so simple that they may be discussed in very few words.

It has been shown that all who practise physic in any of its branches require to be instructed in all; and, the public welfare demanding that there should be, on this point, the fullest attainable assurance, it is the duty of the legislature to provide that all who profess to practise the art should have their competency to do so fully proved. So far all must be agreed, for a truth so obvious cannot be contravened. The question, therefore, becomes narrowed to the consideration of how the legislature should proceed, so as to attain most simply and effectually this desirable and necessary end. That the numerous institutions which have hitherto granted certificates of medical competency could be so modelled as to fit each for attesting the full qualification required, or that any supervision could be devised capable of ensuring uniformity of discipline among so many, would be a vain expectation. The expedient at once direct, simple, and effectual, is to constitute for each division of the kingdom one examining and licensing board, for testing the qualifications of candidates, and for granting to all so proved the legal licence to practise, for which no other machinery could be required than that which the examining and licensing board could supply.

While provision was thus made for constituting a competent and legalized profession, the existing body of qualified practitioners should be at once embodied therein, by each being required to take out a license on verification of his claims; in estimating which the line of strict regularity of education need not be closely drawn, all who should be found established in regular practice, and in possession of the public confidence, having a claim to be so enrolled. Such slight departure from strict rule would be unimportant and harmless, as the necessity for it could never again recur.

The system of education and examinations to be pursued by the proposed board would demand much deliberation and great care; but a well-selected board could experience no difficulty at the present day in devising such a system as enlightened experience would dictate. In constituting this board, there should be a certain portion of

members nominated by the Crown; and the medical members might, in the first instance, be appointed by the present universities and colleges. By such procedure, the best talents of every existing department would be concentrated in the formation of the board. Afterwards, when the collective profession should be duly incorporated for the purposes of self-government, the election to vacancies in the qualifying board might, with propriety and advantage, be confided to whatever senate or council the collective profession should select for administering its own affairs. This very simple procedure of founding one examining and licensing board in each division of the kingdom—these to be in perfect conformity with each other—and of giving to these boards the exclusive power of granting the legal license to practise, would accomplish all for which legislative authority is needed; and in enacting this the legislature would fully discharge its duty. In ordaining a legal qualification for medical practitioners, the legislature would, of course, be bound to prohibit this being assumed by those who did not possess it. Such a measure would be no infringement on the rights of the community to have what medical aid they think fit, and would only be a necessary protection to the public from the direct exercise of imposture and deceit.

The profession being so constituted through the primary qualification ordained, and provision being made for embodying in it the present class of practitioners, the collective body so formed would require to be endued with the necessary powers for regulating its own internal concerns, and for protecting its own interests. Incorporation by royal charter, and the creation of one national college of physic for each division of the kingdom, would fully suffice for this end. Such charter would, of course, give to the commonalty so incorporated due powers for electing, as their representatives, those whom they should deem most worthy of filling the several offices that the system of self-government would require.

With the exception of the licensing power, now so imperfectly possessed by the several existing institutions, being withdrawn from them, and concentrated in one national board, these institutions would suffer no disturbance. It has been well remarked by Dr. Kidd, in discussing this subject, that "with respect to the future condition of existing institutions, there appears nothing derogatory to their dignity; nor, which is of much more consequence, to their professional utility and efficiency, in considering them henceforth as independent scientific societies, which, retaining all their present members and internal laws, might henceforth admit new members by the same mode as new members are customarily admitted to the Royal, Linnæan, and other societies. Each of the existing societies might still have its own library and museums, and its own lectures; each might have its own meetings, and publish its own transactions; and all, vying with each other in the spirit of a liberal emulation, might continue to benefit both individuals and the public quite as effectually as under the present system." Be it remembered, that the passage here quoted, gives the sentiments, not of a reckless anarchist aiming to overthrow, at all hazards, what is established: but of the highly venerated and estimable Regius Professor of Physic in the University of Oxford.

From him, at least, no revolutionary or levelling doctrine will be suspected to emanate.

By such a change as Dr. Kidd refers to, existing institutions would have their sphere of usefulness enlarged instead of diminished; their energies would be directed to more appropriate ends, and to those pursuits in which they could best promote the interests of science and humanity; and, being no longer objects of jealousy and suspicion, they would obtain a prouder eminence, and receive from their professional brethren and the public a higher estimation than a continuance of their present position could ever procure for them. We consider, then, that if those learned bodies took enlightened views of their own interests as scientific associations, they would be among the foremost to promote the proposed reforms, instead of obstructing them.

It remains only for us to notice the Apothecaries' Company. By the proposed reform the novel and inappropriate function assigned to this company, of qualifying medical practitioners, would be abolished. And here, too, a great good would result from this company being released from an office for which it was never fit, and restored to that for which its services are urgently needed. Much do both the science and the art of pharmacy require to be placed in this country under adequate superintendence and fostering care; and in attending to these the Apothecaries' Company would find ample exercise for its best powers.

To this end, it would be advisable that the present company should be elevated into a National College of Pharmacy, with full powers for regulating the whole of the drug and dispensing trade, a similar institution being provided both for Ireland and Scotland.

A Complete Practical Treatise on Venereal Diseases, and their immediate and remote Consequences; including Observations on certain Affections of the Uterus, attended with Discharges. With an Atlas of Plates. By WILLIAM ACTON, late Externe at the Female Venereal Hospital, Paris. Renshaw, London, 1841. 8vo. pp. 410.

IN a short preface to the work now before us, Mr. Acton informs the reader, that no practical treatise exists which embodies the whole of our knowledge at the present day on the important subject of venereal diseases. To supply this deficiency has been his chief object; and in order to qualify himself for a task which requires no mean degree of ability and industry, Mr. Acton has not only gleaned all that is useful from standard writers on this subject, but acquired a practical knowledge of it during a long attendance at the Venereal Hospital at Paris, under the friendly tutelage of M. Ricord.

Having, in an introductory chapter, given a very complete history of venereal diseases, Mr. Acton enters on the subject of his treatise. It is divided into two distinct parts; the first is de-

voted to non-virulent affections, or, as the author calls them, syphiloid diseases. Under this class, Mr. Acton arranges blennorrhagia, epididymitis, strictures; affections of the prostate and of Cowper's glands; vegetations; herpes preputialis; eczema; and, finally, excoriations. From the above enumeration, it appears that the author has introduced some terms which are not yet current in English medical nomenclature. We fully approve of the changes which have been adopted by Mr. Acton; blennorrhagia, signifying as it does a discharge from mucous membranes, is a much better name than gonorrhoea; in the first place, everybody knows that the seminal fluid has nothing whatever to do with the discharge; in the next, the word gonorrhoea involves an absurdity when applied to discharges occurring in the female; and finally, by adopting the term blennorrhagia, we get rid of the idea of contagion which many practitioners are accustomed to regard as a necessary element of the class of diseases included under gonorrhoea. With these views, we cannot understand why Mr. Acton has retained the term gonorrhoea to express the disease which occurs in the male. Epididymitis, again, is a term which very correctly represents the complaint known to English surgeons under the absurd names of hernia humoralis and swelled testicle.

The various subjects comprehended in the first part of this work are treated in a very methodical and complete manner. Thus, to take one disease as an example, having given a definition of blennorrhagia and its synonymous terms, the author proceeds to describe the general symptoms of this affection; he then examines the pathology of the disease, and shows how it may be connected with simple increased redness of the mucous membrane; with excoriation, granulation, or ulceration. He then treats of the diagnosis and prognosis of the disease, and concludes his chapter with a full account of the treatment by which it may be either prevented or cured; the same plan is pursued throughout the work. In the second part of his treatise, Mr. Acton describes syphilitic diseases, or virulent affections, depending essentially on a special cause. Under this head we have chancre and its varieties, bubo, secondary affections of the skin and mucous membranes, and syphilitic affections of the eye and of the testicle. The tertiary symptoms of syphilis are then described, and the work concludes with a short chapter on the syphilitic affections of children.

The limits of our work will not admit of our attempting anything like an analysis of Mr. Acton's treatise; we shall, therefore, make one or two extracts from it, and point out several features by which it is distinguished from other treatises on the venereal disease.

In the first place, the present work may be regarded as a complete and faithful account of M. Ricord's views on the history and treatment of venereal affections—almost every page in it shows that Mr. Acton has profited largely by the opportunities which were afforded him while studying under M. Ricord, by whom he was treated rather as a friend than a pupil; the author, however, does not confine himself to an exposition of M. Ricord's doctrines, but has embodied with them the experience of English standard authorities, and the results of his own observations in the hospitals of this country. From the peculiar advantages thus enjoyed by the author, he has been enabled to collect information upon many important points that are briefly touched upon, or often overlooked, in most works on the venereal disease. The pathology, for example, of the various affections is pointed out in a very careful manner; the following is a specimen:—

“**BLENNORRHOAGIA. — MORBID APPEARANCES.**—As this branch of the subject is new to English readers, we shall treat of it at some length, and illustrate our observations by appropriate drawings. In our investigations on this subject, we have been kindly aided by M. Emery of St. Louis; and M. Danyau, the surgeon of the Female Venereal Hospital, has, by a particular favour, allowed us to inspect the patients entrusted to his care; and M. Vidal de Cassis has likewise placed at our disposal every facility for studying these diseases. Thus, in a short space of time, an immense number of females have passed under our care, and we have, in the intention of publishing, kept particular notes of the cases. Not contented with what we have read, we have personally seen what we have describe; not resting satisfied with examining the external organs of generation, we have, by means of the speculum, and under the direction of these professors, narrowly investigated the internal organs of those females entrusted to our care.

“We have found the mucous membrane in its whole extent, or in isolated points, of a red colour, accompanied by swelling, heat, and pain, unattended by any secretion; thus presenting an erysipelatous state, which may last a short time, and then disappear. We have seen other cases, which present the first stage of catarrhal inflammation, give rise to a morbid secretion, the colour and consistence of which are very variable; this difference seems to have no reference to the cause which has produced it.

“In examining the vulva, vagina, or the neck of the uterus, we have observed the mucous membrane covered with papulae or follicles, more or less developed, constituting a papular vaginitis, or utero-vaginitis, a *psoridytis*, as M. Ricord terms it; sometimes assuming the form of small spots, in size not larger than a pin's head, and isolated, or more or less confluent. In other cases, these papulae look like granulations deprived of their epithelium; lastly, they may assume a fungous appearance, or the form of vegetations.

“On the same portions of the mucous mem-

brane we have distinctly seen patches more or less numerous, and varying in extent, which have a striking analogy with the suppurating surface of the skin on which a blister has been applied. M. Ricord has likewise witnessed a case in which an eruption of herpes phlyctenoides was present on the neck of the uterus, and the posterior part of the vagina: lastly, we may find ulcerations of every description seated on the whole or any part of the surface of the genito-urinary mucous membrane."

The pathology of epididymitis is also well described by our author, and he has bestowed considerable pains on the important subject of chancre, and the conditions which are necessary for the production of the special effects of the virus. Indeed, the whole of the chapter devoted to chancre abounds in views, many of which are novel to the English reader, but all of practical importance; we allude more particularly to those on the predisposing causes of secondary symptoms; under the consecutive effects of gonorrhoea, Mr. Acton describes in a very full manner the symptoms and treatment of stricture of the urethra; false passages; infiltrations of urine; fistulous openings and diseases of the prostate gland. In the chapter devoted to blennorrhagia in the female, we have a detailed account of the various discharges, &c. to which women are subject; hence, though nominally a treatise on venereal diseases, Mr. Acton's work really embraces almost all the principal affections of the genito-urinary system in both sexes.

The atlas which accompanies this work contains eight plates illustrative of various states of the os uteri and glans penis in blennorrhagia; of the progress of artificial chancre produced by inoculation; the varieties of chancre; mucous tubercle, and syphilitic affections of the mouth and throat. The plates are executed in the most perfect manner by Hullmandel, from drawings taken in France; the last one, however, (and we regret to say that it was made by an English artist,) is a very poor companion to its predecessors.

From the brief sketch which we have thus given of Mr. Acton's treatise, the reader will, probably, be inclined to conclude with us, that it is a useful accession to the literature of the day, and is well calculated to fulfil the object for which the author has introduced it to the notice of his medical brethren.

ACADEMY OF SCIENCES.

Paris, May 8.

OBSTRUCTION AT THE INTERNAL ORIFICE OF THE URETHRA.

M. CIVIALE read a memoir on obstruction of the internal orifice of the urethra. The author

described a particular species of obstruction at this part of the urethra, which occurs chiefly in old persons, and depends sometimes on disease of the prostate gland, and sometimes on a semilunar fold, which projects from the under surface of the neck of the bladder, and thus impedes the discharge of the urine, and the introduction of instruments. This valve presents various degrees of thickness and elevation; it is sometimes nine or twelve lines high, and appears to be produced by some tumefaction of the prostate gland, which elevates the mucous membrane into a peculiarly shaped fold. The surgical treatment consists in dividing this membranous barrier, either from the edge towards the base, or by puncture. The author exhibited to the members of the Academy the instruments with which he performs this operation; it has already succeeded in two cases.

STAMMERING.

M. Petrequin addressed a letter to the Academy on the subject of stammering, in which he dwelt at some length on the necessity of investigating the principal varieties of this affection, in order to appreciate correctly the various operations which may be suitable to them. He then describes the method of operating which he has adopted. He commences by ascertaining with the thumb of the left hand the precise situation of the inferior process to which the genio-glossi muscles are attached, and with the index of the same hand, introduced into the mouth, the superior process, and thus measures the distance between these two points, &c. Having done this, he passes the point of a double-edged bistoury (at about a line and a half from the frenum) into the sheath of the genio-glossi muscles, to the depth of five lines. A blunt hook is then passed downwards through this opening, and turned under the tendons of the muscles, which are divided with a pair of scissors.

ACADEMY OF MEDICINE.

May 11.

VACCINATION.

M. DE CLAUDE read the annual report on vaccination, of which the following are the conclusions:—

1. In the various epidemic attacks of small-pox which have occurred throughout the provinces, vaccination has unquestionably tended to arrest the progress of the disease, by converting small-pox into varioloid.

2. In the whole of France, the immense majority of persons vaccinated for a considerable length of time, remained free from the disease, although they had close communication with infected individuals.

3. Even when small-pox had affected the constitution, it was always favourably modified by vaccination, both when the disease was at its outset, and when it had made considerable progress.

4. Some cases of severe modified and of true small-pox have occurred in the vaccinated; but several of the observations of this kind are incomplete, and in several the certificates did not clearly show that the vaccination had been perfect, for they were delivered on the day of the performance of the operation. However this may be, it is certain that in every case, small-pox after vaccination was much less severe than small-pox after small-pox.

5. The diminution of efficacy in vaccine matter after successive transmissions, is denied by most of the practitioners throughout the country; 170 medical men, and 11 committees of vaccination, have declared against this idea. Some practitioners vaccinated one arm with the old virus, and the other arm with new vaccine matter, and they affirm that the pustule and the cicatrix were exactly the same on both sides. Hence we cannot consider that any deterioration has been proved to exist.

6. The same number of vaccinators disprove of revaccination, at least as a general measure, because it might shake the confidence of the public in the efficacy of vaccination. Besides, the advocates of revaccination are by no means agreed on the period at which the second operation should be employed. Some mention 20 or 25 years after the first vaccination; others fix a much shorter period; finally, some would have us revaccinate the whole population every five years.

7. Of 6,652 revaccinations, the progress of which was regularly noted, there were 718 cases in which a normal pustule was obtained; in 1,283 cases, the pustule presented such doubtful appearances, that nothing could be concluded from them: finally, revaccination failed completely in 4,651 cases. Hence the reporter concludes, that as revaccination succeeded in so small a proportion of cases, the greater number of individuals are incapable of contracting vaccinia twice, and that a second vaccination would, generally speaking, be useless. Besides, even a successful revaccination does not guarantee the patient against the infection of small-pox, and the operation could never become general.

An interesting debate followed the reading of this report.

Mr. Piory did not agree in the condemnation of revaccination by the reporter. He had frequently revaccinated, and thought that, in a fourth or fifth of the cases, the operation had been followed by a pustule which bore the same relation to the vaccine one as that of varioloid does to the pustule of small-pox.

Mr. Bousquet said, that of 138 cases of revaccination practised by him, 30 gave rise to a true pustule. At Versailles he had revaccinated 90 persons, and succeeding in 37 cases.

M. Honoré adopted the opinions expressed in the report; on the other hand, MM. Dubois, Bouillaud, and Deportes, thought that the question of revaccination had not been examined in a manner calculated to clear up so important a subject.

ACCIDENTAL SCALPING.

M. Leroy d'Etiolles presented the *whole* of the hairy scalp which had been torn off from the head of a woman by a carding machine. The woman survived this dreadful accident for fourteen months, and was finally carried off by hectic fever. The denuded cranium had exfoliated.

KING'S COLLEGE HOSPITAL.

On Saturday, the 15th instant, Mr. Fergusson amputated the thigh of a man, aged forty-five, who was labouring under extensive and chronic disease of the knee-joint. The patient, it seems, was recently dismissed from another Metropolitan hospital of no mean repute, with the following

sage injunction:—"Go home, keep your leg quiet, that is all it now requires; and you will be sure to get well." The patient, finding himself getting worse instead of better, applied for admission into King's College Hospital, about a week previous to the date of the operation. He was in a high state of hectic at the time. There was considerable functional derangement, and the constitution was evidently sinking under the disease. As the only chance that now remained of saving the patient's life was the immediate removal of the limb, in the presence of Dr. Todd, Dr. Budd, Mr. Partridge, and a numerous class, Mr. Fergusson amputated the thigh, at its upper third, by the flap operation. The posterior flap was made considerably longer than the anterior, in order to allow for the greater degree of retraction which takes place there. The tourniquet was not employed, the femoral artery being compressed by the fingers of an assistant. Mr. Fergusson operated with that coolness, neatness, and we may add *humanity*, for which he was so distinguished in the theatre of the Royal Infirmary of Edinburgh. We have been present at several of his operations at King's College Hospital, from that of lithotomy to the division of the internal rectus muscle, and have observed the same coolness and dexterity in every instance.

After the limb was removed, the diseased parts were dissected. The point was literally burrowed through with abscesses. The bone was denuded in several places, and, considering the great extent of the suppurating surface, it is as surprising how the patient's constitution was enabled to withstand its ravages for several months, as it is singular how the nature of the disease could have escaped the notice of any hospital surgeon.

OBITUARY.

We regret to state that Dr. Hope, author of the well-known work on Diseases of the Heart, died at Hampstead last week, in the forty-first year of his age. It is said that the cause of Dr. Hope's death was disease of the heart. A vacancy thus occurs in the office of Physician to St. George's Hospital.

LITERARY INTELLIGENCE.

MR. CHURCHILL is about to publish a cheap edition of Sir A. Cooper's great work on Dislocations, under the superintendence of Mr. Bransby Cooper. This was the more necessary as a pirated edition has been for some time in the market, against which we understand an injunction has been obtained by Mr. Cooper.

TO CORRESPONDENTS.

We have been compelled to defer several communications until next week.

Printed by THOMAS ISOBSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JOSEPH PALMER, of 50, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMSEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, May 21, 1841.

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MONDAY, MAY 17, 1841.

LECT. III.—On simple and compound fractures.

GENTLEMEN,—Having explained to you the consequences and treatment of contusions as connected with the subject of fractures, I have next to describe to you another source of danger, which will now and then present itself in structures immediately surrounding a fractured bone, and which you will more frequently meet with in fractures of the cranium than in those of other bones; but in all cases where you find a broken bone enveloped in, or continuous with, fascial or tendinous coverings, the serious effects of local injury, to which I have now to call your attention, will sometimes ensue, and not only as a consequence of fractures, but as the result of other accidental injuries.

I am now alluding to the accession of acute suppurative inflammation in the cellular or reticular tissues which are interposed between the unyielding membranous investments of the injured part. Now suppuration of the scalp, following a fracture or any other injury to the part, must always be regarded as a dangerous symptom, and your knowledge of the anatomy of that part will at once enable you to give a pathological explanation of the cause. The scalp, or covering of the cranium, is, as you know, composed of four different textures, the skin, the occipito-frontalis muscle with its tendon, the pericranium, and the connecting reticular membranes. We need hardly inquire, in which of these textures are we to look for the dangerous consequences of suppurative inflammation? We know it is neither in the skin, the tendon of the occipito-frontalis, nor in the pericranium, but it is in the reticular membrane which forms the connecting medium between these structures. Here will be the seat of danger, and for the reason, that reticular membranes are composed of an innumerable quantity of cells, which cells are not separate, but freely communicate one with another, and therefore form one continued, and immensely extended secreting surface, the whole comprising an enormous sheet of serous membrane. Suppurative inflammation, therefore, once set up even in a small circumscribed spot, extends with great rapidity through the adjoining cellular cavities, and thus a prodigious extent of surface is in a short time the subject of the most serious diseased action, invariably producing a corresponding degree of derangement in the whole system.

Wherever this cellular or reticular tissue is interposed between structures possessing the same inelastic properties, as the tendon of the occipito-frontalis and the cranium—in all parts of the body where the reticular textures are firmly bound down by unyielding sheets of membranous expansion, whether fascia, ligament, or tendon; in all these cases we find precisely the same consequences from suppurative inflammation set up in the connecting medium, or cellular tissue. In fractures, contusions, or other injuries producing suppuration in the hand, the foot, and other parts enveloped in tendinous or fascial covering, the same consequences will ensue from the same causes.

The reason which may be assigned for the absence of these serious effects of suppuration in loose textures may be easily understood. When inflammatory action, whether of the adhesive or suppurative kind, is set up, in consequence of local injury, in parts which offer no obstruction to the effusion of the secreted fluids, that inflammatory action and its consequences will extend, more or less, in a circle around the part, and the centre of that circle will be the first exciting cause, whether it be a fracture, a wound, or a contusion. If, on the contrary, the surrounding structures prevent; by their inelastic properties, the general effusion and diffused sphere of inflammatory action in one particular direction, that effusion and inflammatory action will run its course with increased severity, through other continuous parts to which it is driven. Thus, if the cellular membrane in soft and moveable parts, unconfined by fascial or tendinous coverings, be the subject of suppurative inflammation, no obstruction is offered to the free effusion of matter, by the parts surrounding the reticular membranes: no check is offered to the general diffusion of inflammatory action in every surrounding direction. If, on the contrary, suppuration be set up in those cellular textures which are interposed between such unyielding structures as the cranium and the tendon by which it is covered, the inelastic nature of these restraining parts will prevent any extension, and consequently any interstitial deposit in the direction in which they are placed; they press upon the inflamed parts beneath them, and consequently add an exciting cause to the diseased action already set up.

Tendinous coverings stretched over reticular membrane in a state of acute suppurative inflammation, will act as tight bandages bound around other inflamed parts; they prevent effusion in one direction, and by their pressure doubly increase inflammatory action in every other. Thus suppuration once set up in the cellular membrane covering the pericranium, will extend quickly over a large extent of surface, and will drive into surrounding parts that diseased action which in loose and moveable parts would have been confined to a circumscribed spot, or diffused without restraint from the pressure of unyielding bandages. In

addition, also, to the causes which I have already mentioned, you will find that reticular membrane in these confined situations is highly susceptible of diseased action.

To sum up, therefore, in a few words, the substance of what I have stated, let me repeat, that fractures and other injuries exciting suppurative inflammation under fasciæ, tendinous expansions, or in the sheaths of tendons, are attended with serious consequences from the injury done to the connecting reticular tissue, and not by virtue of any high degree of local or constitutional irritation which may be excited by the essential properties of either tendon, fascia, or ligament.

Suppuration in this cellular tissue is rendered dangerous from three causes; first, from its confinement under inelastic structures; secondly, from the rapid and aggravated extension of diseased action in consequence of this confinement; and, thirdly, from the constitutional irritation which these causes of increased injury to extended surfaces and highly susceptible textures never fail to produce—considerations which show most strongly the necessity for making an opening as soon as the formation of matter has commenced.

But a most serious cause of danger from fracture combined with inflammation of the scalp must be sought for in another part. When suppuration follows these injuries, the sympathy between the contents of the cranium and its external coverings will sometimes be the cause of fatal consequences. This sympathy, established by the free anastomosis of vessels through the bone, does occasionally produce a corresponding disease in the interior, by exciting suppurative inflammation upon the dura mater. For it does in some cases happen, that even a simple bruise on the head will be followed by a fatal termination from this cause. This remote effect often follows the formation of a slough, from the total and permanent destruction of the scalp produced by contusion. In these cases the suppurative process is long continued, and requires the assistance of ulceration to throw off the extraneous body; and it is from continued sympathy with this long-continued source of local disease, that the membranes of the brain most frequently become susceptible of receiving the same morbid impressions as the external parts. Do not think that I am magnifying the consequences of fractures, because you may have heard that in some cases considerable quantities of pus are thrown out under the scalp, and no serious constitutional effects are produced; or, that in other cases a slough of considerable size will separate from this part without a single bad symptom. I assure you, I enlarge upon this point, not with a view of making this part of the lecture more interesting, but solely to guard you against forming your opinion on the subject, from a few accidental and successful cases of this kind, for you may be well assured that no patient is out of danger whilst matter is forming beneath the scalp, or when a slough is separating from the part, whether that formation of matter or that slough be produced by accidental injury, or by diseased action. Perhaps this subject might have been introduced with more propriety at another time, but I think it right that the unexpected consequences of apparently trivial injuries should make a lasting impression on your minds. From severe fractures you are taught to expect the most serious consequences;

I wish to place before you the serious consequences of apparently trifling injury, and I hope, therefore, that you will place in your notes, or register in your memory, not only the common effects of fracture, but the causes of those results which are occasionally fatal. To show that I am not exaggerating these effects, I will just refer to a case which was not very long since in this hospital. A man had a fracture of the left parietal bone without apparent depression, which was not attended by any very serious effects, and he soon left the house of his own accord, but returned some weeks afterwards, with suppurative inflammation not only beneath the tendon of the occipito-frontalis, but, as it appeared after death, with a collection of pus within the cranium. He was a man of irregular habits, addicted to drunkenness, and from his excesses after he first left the hospital, parts which otherwise would have been entirely tranquil, were excited to fresh inflammatory action, first in the scalp, afterwards communicating with the interior of the skull, and thus an injury trifling in its extent, in the first instance, became, subsequently, from neglect, the immediate cause of death.

I have told you the circumstances which may give rise to difficulty in the treatment of fractures in old persons, and equal difficulty may occur where your patients are young children, though from a different cause, namely, their extreme restlessness. They will not be still for more than a few minutes at a time, and very frequently tear off all your bandages and dressings, or, even if they suffer them to remain, their skin is so delicate, that it will not bear the pressure, but becomes inflamed or excoriated, and causes extreme suffering and irritability. The best way of meeting these difficulties, is to employ wetted pasteboard as a substitute for the wooden splints, in children, say from two to six years of age. More equable pressure is thus effected over the surface of the limb, and excoriation is much less likely to follow, while quite sufficient support is afforded. In children, some little deformity after fracture is apt to ensue, but it is of less importance in them than in adults, as it becomes imperceptible during the growth of the body. Crepitus is very frequently wanting in young children, and it is cruel to seek for it. There can be no possible good in going through a series of painful manipulations to make the ends of the bone grate upon each other, for it is quite sufficient to enable you to discover the existence of a fracture, if the two ends of the bone do not move together. If you can move the upper part of a limb while the lower is nearly motionless, of course the continuity of the bone must be broken, and you have loss of power in the limb and deformity, which proves the presence of a fracture without crepitus. Even in adults it is absurd, in some cases, to seek for crepitus, as in the humerus, the femur, and the clavicle, where even the eye will almost detect the nature of the injury. On the other hand, beware of being deceived, by the presence of crepitus, into the belief that there is a fracture where there is none. This mistake is especially liable to occur where the neighbourhood of a joint is the seat of injury, for the effusion of synovia into the cavity of the joint, or of increased or altered secretion within a bursal sac, will give rise to a crepitus so similar to that of fracture, that no verbal description will serve to explain the difference. Experience alone will teach you the

marks of distinction, and you will gain much assistance from the use of the stethoscope in doubtful cases.

You will sometimes hear of longitudinal fractures, and these are said to be produced most frequently by gun-shots. I do not deny that such a fracture may occur, but I never saw a case. You will also hear of what are called *bent bones*; now I have seen cases in children which were supposed to be instances of bent bones, but in every one there was either actual fracture, or such an amount of injury to the soft parts, as alone sufficed to produce the deformity, though the bone remained perfectly straight. I do not, however, deny the possibility of a bone being bent in young children; but I do say, that in an adult, it is impossible to bend a healthy cylindrical bone by any force which you can apply, or any blow which you can inflict. You might as well try to bend a tobacco-pipe. I believe a healthy bone in an adult never was yet bent by accident without solution of continuity.

You will probably think that I am making an extraordinary statement when I say, that in some cases it may be desirable to set a bone crooked; but that such is the case, you may learn from the following instance:—Several years ago, there was a man whose bones were excessively fragile, and he was always breaking them. He spent nearly half his time in the hospital, and had scarcely ever been discharged after the cure of one fracture, but a few weeks afterwards he returned with another. At that time I was apprentice to Sir Astley Cooper, and it struck my fellow dresser, that as one thigh was very crooked, the ends of the bones having overlapped each other, under a very ignorant surgeon, forming what was called a *ram's horn* fracture, it would be better to sacrifice personal appearance to stability, and set the one just fractured like the other. The ends of the bone were accordingly allowed to overlap each other, and thus both legs were brought to the same length, giving the patient of course much more ease in progression, but he told me some time afterwards, that he thereby lost four inches in height. This some might not like, and therefore if any similar case should occur to you, point out the advantages and disadvantages of a second crooked limb to the patient, and be guided in your practice by his opinions and wishes.

Now, as to the relative amount of deformity produced by transverse and oblique fractures, if you can bring a transverse fracture into perfect apposition, of course the deformity is slight; if not, it is greater than in an oblique, as the overlapping is more complete. Oblique fractures very often injure surrounding parts the most, and if the sharp extremity of the bone is near the skin, it is very liable to come through. Everything in such cases depends on proper management, and remember, invariably, never to attempt the reduction of a fracture by mere force. You may apply the greatest force to a limb which is the subject of fracture, without removing the displacement so long as you neglect the state of the muscles acting upon the bone, while reduction is readily effected directly these are relaxed. You may perhaps see the most powerful extension made without effect upon a leg, the bones of which are broken and displaced, the leg being kept quite straight, but as soon as it is flexed, the fractures will be reduced with very little difficulty.

Fractures are either simple or compound, and the popular distinction between the two is, that in one there is a wound of the integument communicating with the fractured extremities of the bone; while in the other this is not the case. This distinction may do for a court of justice ninety-nine times out of a hundred; but in an examination before the College of Surgeons, if this were the only distinction the student could adduce, he would probably find at the close of his examination, if he were not at once rejected, that he had had a very rough time of it; at least he certainly should, if I were the examiner. There is a pathological difference between them; they differ in their consequences and in their treatment. A simple fracture unites by adhesion; a compound fracture by suppuration and granulation, and this is the only proper distinction between the two; for the integuments wounded in a compound fracture healing by adhesion, the fracture becomes simple; and various causes tending to produce suppuration in the neighbourhood of a simple fracture will render it compound. The bone is much longer in uniting in compound than in simple fractures, just as we see reparation in the soft parts much more slowly effected by suppuration and granulation than by adhesion. This delay is owing to the injury of the surrounding parts, for the bone itself is not more injured in compound than in simple fracture. If the same injury could be inflicted to the muscles and other soft textures by other means, nearly the same results would follow. The soft parts are ~~forcibly rent asunder and disorganized—the external outlet is small, and the suppurative discharge flows not from the bone itself, but from the soft parts.~~ This is clearly proved by its great quantity, and by the formation of sinuses. Thus you see, in a case now in Lazarus ward, and another nearly similar in Cornelius, that the same effects have followed severe lacerated puncture, as though there had been a compound fracture. If the soft parts have not been disorganized, a compound fracture frequently becomes a simple one; and this, I hope, will be the case in one of the patients in Cornelius—I mean the man with dislocation of the foot inwards, and compound fracture of the fibula. But I have my doubts whether this case will turn out so favourably, for there was considerable hæmorrhage, and an oozing of blood has continued through the external wound, so that we have to fear that a coagulum of blood will form in the lacerated soft parts, and check the progress of their union. There is another case in the same ward, in which I think simple fracture will become compound, for the man is afflicted with delirium tremens, and the broken bone is in constant motion. This has produced gangrenous inflammation of the soft parts, vesicles have formed, and I believe we can only look forward to the occurrence of a compound fracture.

We have now one case in the house, and we have had two others within the last few months, in which the two broken ends of bone have been separated laterally, at the time of the accident, so that portions of cellular tissue have been locked in between them. When this occurs, you will recognize it from a puckering in of the skin, owing to the traction exerted upon it, and when this puckering in is observed, it is sometimes very difficult to draw the broken ends apart so as to dis-

engage the entangled soft parts; but in two of these cases no inconvenience resulted, the parts gradually accommodating themselves to their new condition. The other is still under treatment. I have before me the notes of these cases, and also of those in Lazarus and Cornelius wards here; but I will not weary you with reading a long and minute detail of the symptoms of these patients, as I do not wish my clinical lectures to supersede the necessity for clinical instruction in the wards, but merely to detail practical points more minutely than we can do in our formal surgical lectures, and also to fill up the *hiatus* in our clinical instruction in the ward, which time will not allow us to do at the bed-side.

With regard to the general rules for the treatment of compound fracture; in the first place, you cannot place it in any position you think best, as is the case with single fracture, but invariably in such a manner that you can reach the wound to dress it, without there being any necessity to move the limb. If a portion of bone protrude, and this portion be denuded of its periosteum, saw it off rather than replace it, for it will most probably exfoliate and retard the process of reparation. Then, as to the dressing of the wound—it is a common practice to cover it with a pledget of lint steeped in blood, but I object to this, for when this has dried, it not only forms a hard dressing which is very irritating to the skin, but you cannot see what is going on, and suppuration is very apt to take place beneath the dressing without much pain, and without the knowledge of either patient or surgeon. I think it better, therefore, merely to cover the wound with a piece of lint covered with some simple un-irritating dressing, and then apply over this a strip of adhesive plaster, with a small aperture in its centre to allow of the discharge of any matter that may form. The pus is thus allowed to escape, and you avoid the consequences of its burrowing amongst the subjacent tissues. In the young I prefer the saturnine to the evaporating lotions, for the reasons I before stated—in the old, warm fomentations and poultices. The local treatment is thus the same as in severe lacerations—you first try to effect adhesion, and if you fail in this, promote healthy suppuration.

The constitutional treatment consists at first in lessening irritation, and afterwards in supporting the system. Bleeding may be necessary in strong subjects living in the country, but is, for the most part, totally inadmissible in those whom we have to treat in the London hospitals. Opium is always more or less beneficial, and this, with due attention to the state of the various secretions and strict regulation of diet, is all to which I need direct your attention.

Next week I shall speak of burns and scalds, a subject which we can at all times illustrate by cases in the wards.

REMARKS ON THE EXHIBITION OF SULPHATE OF ALUMINA AND POTASS.

BY

MARTIN HAMILTON LYNCH, M.D.

LATELY LECTURER ON THE PRACTICE OF PHYSIC IN THE NEWCASTLE SCHOOL OF MEDICINE.

A LETTER recently appeared in the Provincial Medical and Surgical Journal, from Dr. N. Grat-

tan, in which that gentleman expresses his opinion of the great value of alum given in 15 grain doses, in combination with dilute sulphuric acid, as a remedy not only in profuse menorrhagia, but also in the hæmorrhage of abortion; and relates, in illustration, two cases of abortion in the sixth and twelfth weeks, which had been followed by hæmorrhage, and thus successfully treated. Instances of this form of uterine hæmorrhage are seldom met with, so severe as these alluded to by Dr. Grattan, who, I cannot avoid thinking, attributes too much importance to alum as a means of checking a hæmorrhage, which, when it is formidable and resists the ordinary treatment by rest and refrigerants, would be more promptly and certainly controlled by the plug. At the same time, however, my experience leads me to consider that, in cases of alarming hæmorrhage, alum, administered in conjunction with sulphuric acid, is a medicine of much more efficacy than is generally imagined, provided it be taken in much larger doses than it is usual to prescribe.

In January 1837, a gentleman, aged 37 years, who had been for five months affected with hæmaturia, came under my care. The usual treatment was pursued; he was bled and repeatedly cupped, and uva ursæ, turpentine, and pareira brava were successively but in vain administered during several months. In consultation, on the 3 grains of the acetate of lead were ordered to be taken in a draught every eight hours, with 3 drops of laudanum and a drachm of vinegar. This treatment was persevered in for some days, when the occurrence of the ordinary symptoms produced by the deleterious action of lead, compelled the discontinuance of the draughts. The patient was reduced to an extreme degree of debility by the long continuance of hæmaturia, and his exhaustion and sufferings were much increased by the constipation, hiccup, colic, and tremors, produced by the lead. For several days he was so despondent that he refused to submit to treatment, but ultimately consented to take a laxative electuary and the following draught:

R Sulphatis aluminæ et potassæ, gr. xv.

Acidi sulphurici diluti, gt. xxx.

Sulphatis magnesiæ ʒj.

Infus: rosæ, ʒj.

Fiat haustus, ter quotidie sumendus.

The quantity of alum was gradually increased from 15 to 45 grains, and the draught containing this latter quantity was continued for six days; under this treatment the patient's appetite increased, his general health improved rapidly, and the urine became clear. A relapse, however, took place; the urine again became bloody, but was quickly restored to a healthy state during the use of the draught, containing 45 grains of alum.*

During the use of the draughts a curious change was observed to take place in the urine, which became almost black; as this alteration of colour had never before occurred, I am inclined to infer that it was produced by the absorption into the circulation and elimination by the kidneys of the free sulphuric acid, and of that contained in the supersalt and the combination of this acid with the colouring matter of the blood diffused through the urine, for although (through the previous progress of the case) the urine had always decidedly red-

dened litmus paper, this dark colour had not been produced.

Encouraged by the apparent energy of the remedy in this case, and the absence of any unpleasant symptoms from its employment, I have several times prescribed it in the hæmorrhages in doses of 45 or 50 grains, combined with 30 or 40 drops of dilute sulphuric acid, and a drachm or ʒiiss. of sulphate of magnesia and ʒiiss. or ʒij. of water.

These draughts themselves have been almost always sufficient to produce a laxative effect on the bowels, but when this has not been the result of the exhibition, I order some mild purgative occasionally during their administration. Cullen, in his *Materia Medica*, observes that half a drachm of alum produces vomiting, but I have never seen this effect follow doses of 50 grains given three or four times daily, as in the preceding draughts. Perhaps, however, alum *alone* may excite vomiting, for it is not impossible that the sulphate of magnesia may prevent vomiting in the same way that Gregory's powder, colocynth pill, or compound rhubarb pill, or any mild purgative repeatedly administered in moderate doses, prevent or diminish sea-sickness, viz. by maintaining the natural peristaltic action of the intestines.

Alum is one of the safest of our astringents, but in cases of alarming hæmorrhage, acetate of lead in doses of 2 or 3 grains, repeated every six or eight hours, is usually prescribed, being considered a more efficient remedy. The acetate thus given is really a more powerful remedial agent than alum administered in the ordinary doses, the maximum of which never exceeds 20 grains; but in the large doses I am in the habit of ordering it, alum is little, if at all, inferior in energy to the acetate of lead, and has this advantage, moreover, that it may be taken with perfect safety by individuals who would be placed in the greatest jeopardy by the free exhibition of lead: for I cannot divest my mind of a suspicion that acetate of lead in 3 grain doses is more frequently productive of disagreeable consequences than is generally supposed. I am aware that such instances have not found their way into the journals, but that they not unfrequently occur I am disposed to infer, from having met with two such cases in my own practice.

Let us imagine a case of formidable hæmorrhage, which has, perhaps, recurred frequently for weeks or months, which is produced by, or complicated with organic disease, and is attended with great general debility and long existing anæmia. If alum be equally efficacious with the acetate of lead, would it not be a much more appropriate remedy in such cases?

Formerly* alum was given internally in gonorrhæa; the great benefit derived from its use in a case of hæmaturia treated by Mr. Guthrie in the Westminster Hospital, in mine, and in one which my friend Sir John Fife, at my suggestion, treated with alum in large doses, lead me to conclude that this substance is deserving of trial in gonorrhæa also, in which it may prove a convenient remedy when fever, inflammation, or irritability of the stomach forbid the employment of the turpentine.

The question may be asked, how much farther may the dose of alum be safely pushed? It is difficult to determine this point precisely, but there are some facts on record which throw light upon it.

Six gros (6 drachms, 26½ grs.) of alum dissolved in water, will kill a large-sized dog, if the œsophagus be tied. (Devergie.)

The symptoms produced by alum administered to dogs in pretty large doses, without tying the œsophagus, are vomiting, in some cases one or more fecal evacuations, debility, thirst, and refusal of food. (Orfila and Devergie.)

The appearances observed after death in dogs, are thickening or softening of the mucous membrane of the stomach, with remarkable vascularity. (Orfila and Devergie.)

Hence it may be inferred, that a sufficiently large dose of alum administered to man will produce gastritis. Orfila thinks that man will bear a much larger dose than the strongest dog, but Devergie is opposed to this view, "because the human stomach has more numerous sympathies than that of the dog;" and the same author says, that the quantity administered by Messrs. Kapeler and Gendrin,* in lead colic, 3 gros. (little less than 3 dr.) per day, could not be safely prescribed for a person in health, or one affected with a different disease.

The possibility, then, of gastric inflammation being produced, suggests caution in raising the dose beyond 50 or 60 grains, repeated three or four times daily; but another source of danger has been pointed out by Messrs. Bouchardat and Couriard. These physicians published, in the first volume of the *Annales d'Hygiène*, &c. for 1837, two cases of poisoning by sulphuric acid, which were marked by some unusual symptoms and morbid appearances. The second case is so curious, and bears so directly upon the subject of this communication, that I may be permitted to give an abridged account of its most important features, more especially as it has been noticed, if my memory serves me correctly, in one English journal only.

"On the 10th of October, 1835, G—, a young woman aged 27, a domestic servant, was admitted into the Hôtel Dieu, suffering from illness, by which she had been seized the day before, when, according to her own assertion, she took some medicine. Symptoms: deglutition difficult; tongue and entire mucous membrane of the mouth highly inflamed; pulse frequent and small; in the stomach a sensation of heat, which, however, is not very intense; pregnancy evident, but resolutely denied by the patient. On the following day, (Tuesday,) difficulty of deglutition much diminished; pulse feeble; extremities cold; during the night of Tuesday, violent cramps in the lower extremities; loss of sensation in the right leg, which inferiorly is quite cold, and presents the marbled appearance of congestion. Wednesday; The patient is quieter, and swallows almost without difficulty; complains less of the throat and stomach, but her pulse has gradually become weaker, and her right leg is cold, and completely insensible even when pinched violently; during

* Dr. Graves, the distinguished physician and professor of Dublin, is in the habit of giving alum in much larger doses than is usual in this country, and thinks its efficacy may be much increased by administering it in those large doses. I have no means of ascertaining the doses prescribed by Dr. G.

* In a few instances Kapeler has, in lead colic, given alum in the quantity of six gros in twenty-four hours, and occasionally given three gros in one dose, without doing any mischief. — *Arch. Gen. de Méd.* 1828.

the night gradual extinction of the circulation, death without pain. The æcropsis was ordered by the juge d'instruction, and conducted by Messrs. Bouchardat, Cadiard, and Emery.

(REPORT.)

The mucous membrane of the œsophagus presents a yellow colour, intermixed with black, and is covered with a yellow fluid, which so strongly adheres to it, as to be liable to be mistaken for a false membrane; the mucous membrane can be readily detached for an extent of an inch to an inch and a half, and is thicker than natural.

In the stomach,—five ounces of a liquid resembling that covering the œsophagus; this fluid lines the mucous membrane of the stomach, which organ, viewed internally after the removal of the fluid, exhibits a marbled appearance, yellow and black, and at a few points the mucous membrane is easily detachable. On scraping the stomach at the pyloric orifice, and in its neighbourhood, that viscus is found to be “charbonnée.”

The heart is of the ordinary size, and contains about 3 ounces of coagulated blood; the aorta is almost filled with coagula; the femoral artery of the right side is almost obliterated by firm coagula.

The uterus contains a six months' fetus.

The fluid contained in a phial, (which, the patient asserted, contained the remains of the medicine she had taken,) was analyzed, and proved to be sulphuric acid, diluted with an equal portion of water. In the analysis of the coagula, a trace of the sulphate of baryta was precipitated, and the smell of sulphurous acid perceived. Messrs. Bouchardat and Couriard considered that death could be ascribed to no other cause than the coagulation of the blood by the acid, which they supposed to have been absorbed. This opinion was founded on the symptoms and morbid appearances, but particularly upon the coagulation of the blood, and loss of sensation, for they very properly deemed the analysis of the coagula inconclusive.

I have not translated the word *charbonnée*, which might be rendered by the words “charred” or “black.” Messrs. Bouchardat and Couriard, it would appear from the context, intended to express that the stomach in the neighbourhood of the pyloric orifice was really carbonized or charred, but they must have been mistaken; the tissues probably resembled charcoal in colour; it is hardly possible that so moist an animal substance could have been naturally charred; and this view is borne out by the mildness of the symptoms, and the absence of corrosion in any part of the organ, which merely showed in other parts the consequences of moderate inflammation. In fact, these physicians forget that acids absorbed into the vessels and capillaries render the tissues of an organ black, by the formation of a peculiar compound with the colouring matter of the blood, the same substance that was formed in the case of hæmaturia which I have referred to. The black colour produced in this way is very often mistaken for certain morbid appearances, as congestion or gangrene, a mistake which should be carefully avoided, destroying, as it does almost entirely, the value of the clinical reports in which it occurs. I may observe, that the account of the appearances noticed in the dissection of the body of the late Sir Astley Cooper affords an instance in which

this error was avoided, for the able men who conducted the examination, state that the black colour observed in the stomach should be attributed to the absorption of some of the natural gastric acids, and their action on the blood.

This case, and another contained in the same paper, coupled with the appearance observed in the case of hæmaturia, seem certainly to afford some grounds for the opinion entertained by Messrs. Bouchardat and Couriard, that the absorption of acids may effect such changes in the blood as to cause death by the interruption of the circulation, and that this may take place when the patient, owing to the dilute state of the acid, would escape being carried off by any of the causes previously acknowledged, namely—1st. Acute inflammation of the stomach, or of the stomach and abdominal viscera; 2d. Sudden sinking from the shock to the nervous system; 3rd. Chronic inflammation of the stomach and œsophagus; 4th. Inflammation of œsophagus and larynx, with obstruction of either.

A correct understanding of the nature of the changes produced by the acids on the blood, is not only interesting in connexion with the physiological agency of these substances, but is necessary, in order to avoid serious mistakes in estimating the nature and value of certain appearances in the dead body. I shall therefore give, from Berzelius, the little that is known regarding the dark compound of which I have spoken. “The acids combine not only with albumen, but also with the colouring matter of the blood, forming neutral compounds, insoluble in acidulated water, but soluble in pure water, which they tinge a deep brown colour. The colouring matter may be precipitated by ammonia, from the compound it forms with acetic acid, and the precipitate exhibits all the properties of the colouring globules coagulated by heat. The compounds formed with the various acids are of a dark colour.”

London, May 8, 1841.

CASE OF SPASMODIC COUGH FROM SPINAL IRRITATION,

CONNECTED WITH DERANGED SECRETION.

By T. B. WINTER, Esq.

MASTER A., aged ten, of strumous habit and highly excitable temperament, was attacked with a very violent cough on November 7, 1840. When I first saw him, on November 9, his cough was peculiarly severe and spasmodic, not unlike croup, but unattended with the stridulous breathing; the paroxysms returning every minute, but without much fever. At the same time he complained of a severe darting pain in both knees. His bowels were regular. His cough continued with very little intermission till the 15th, becoming more like barking than coughing, resisting every remedy both local and general. Emetics—purgatives, with and without calomel—anodynes—alteratives—leeching and blistering the throat, were all employed in active succession, under Dr. Hall's direction, as well as my own, but to no purpose. He occasionally fell asleep for an hour or two, during which time his cough ceased, and

he breathed easily. This peculiar feature of his complaint was noticed throughout his illness. But whenever he awoke, his cough became nearly incessant.

The long-continued cough and disturbed sleep produced considerable constitutional irritation, and on the 15th of November he had some spasmodic motions of both arms, especially the right, together with much increase of pain in the knees. This led to the suspicion that this intractable case might be connected with irritation of the brain and spinal cord, which was confirmed by finding the occiput and the upper cervical vertebrae excessively sensitive to the touch.

Six leeches were applied to the upper cervical vertebrae, and a powder, with calomel, rhubarb, and James's powder, given every four hours. The leech-bites bled freely, and gave instant relief to the cough and the spasmodic action of the muscles. He continued to improve through the day, and at night he slept soundly for six hours, awaking at 4 A.M. November 16, with return of cough, and more violent spasmodic action of the muscles, the whole body being often violently contorted. The bowels had been moved freely, and the secretions were healthy. The occiput and cervical vertebrae being still very tender, the former was shaved and six leeches applied. The calomel powders were continued.

This second leeching removed all the cough and the spasmodic action of the muscles. His appetite never failed throughout his illness; his diet had been chiefly farinaceous, but now animal broth was allowed. From this time the only symptom which troubled him was the pain in his knees, which consisted in a series of lancinating pains darting into both knees several times in every minute, and often disturbing him during sleep.

Nov. 22. His cough returned with violent spasm of the glottis, threatening suffocation, and he became so violent as to require two or three persons to hold him. There was now no tenderness in the occipital or cervical region, but the dorsal vertebrae were found sensitive; three leeches were applied to that part with instant relief to most of the symptoms.

Calomel one grain, compound ipecac. powder two grains, at night; a purgative draught early in the morning.

25. The cough did not return till this day, when, as usual, it was accompanied with violent convulsive action of the whole body. The bowels had been daily moved by the calomel and cathartic draughts, but the secretions were darker than they had been. Three leeches were again applied to the neck, which gave instant relief to the cough and struggling. Mercury and chalk, 3 grains; compound ipecac. powder, 2 grains, at night. The knee-pain still continuing unabated, a blister was applied over the lumbar vertebrae, all local applications to the part affected having proved useless.

Dec. 6. The cough and convulsive action have returned with as much violence as ever. The secretions are free, but dark-coloured. The neck and sacrum were both cupped, with relief to the cough and involuntary action of the muscles, but producing no effect on the knee-pain. Calomel, half a grain; compound ipecac. powder, one and a half grain, night and morning.

7. The cough has returned, but is not accompanied by the convulsive action. Thinking he might have worms, he was directed to take, calomel, three grains, jalap, five grains, at once, and an enema of oil of turpentine, half an ounce, in the evening; also to be dry-cupped.

8. The dry-cupping stopped the cough; he had more sleep in the night. He looks better, and feels better. The bowels moved largely after the enema, and the secretions were very dark—no worms. The knees continue the same. Calomel powder repeated, and the enema in the evening.

9. He coughed very much during the night, but was again relieved by dry-cupping this morning. His general appearance is improved, and the knees are easier. The bowels act freely, secretions still dark. Repeat the powder at night, and the enema in the morning.

10. He had no cough in the night, but he strongly resisted the enema in the morning, and the agitation renewed the cough for a short time. His knees are easier. The bowels acting freely. The secretions the same. Repeat the powder at bed-time.

11. No return of cough. The pain in the knees nearly gone. Secretions greenish from the calomel. Repeat the powder to-morrow morning.

12. This has been his best day in every respect. His secretions improving. He can stand alone for the first time since the 22d of November, and he is free from pain. Till within the last few days he could not bear to have his knees straightened, owing to the severe pain produced throughout the whole course of the sciatic nerve.

An occasional aperient is the only medicine he now requires.

Jan. 27. He has had occasional spasmodic cough, but calomel and jalap powder have always removed it.

Feb. 27. He is in very good health.

In conclusion, I would only remark that the obstinate cough was apparently produced by irritation at the *origin* of the nerves that supply the muscles of the throat, the effects of that irritation being manifested only at their sentient extremities. But this was not the only source of irritation, as the cough returned frequently, and the peculiar pain in his knees never left him till after the active operation of the calomel and jalap, accompanied by the turpentine enema, which would lead to the supposition that unhealthy secretion from the liver and the bowels was the primary cause of the whole, although free purging, with calomel, prior to leeching the spine, was of no avail to any of the symptoms.

Brighton, May, 1841.

ON THE PHYSICAL ALTERATIONS OF THE BLOOD AND ANIMAL FLUIDS IN DISEASE.*

By M. ANDRAL.

ONE of the greatest obstacles which will always oppose the discovery of a universal law in medi-

* Substance of a series of lectures on this interesting subject, delivered at the Faculty of Medicine, Paris.—*Gaz. Med.*

cine is the complex organization of the human frame. In man we find two distinct species of properties; one, which is common to all matter, and is explained by the laws of chemistry and natural philosophy; the other, which depends on organization, and is peculiar to living bodies. Hence we can readily understand how the physical and vital phenomena which emanate from this double source are not equally intelligible. The former can be studied upon a certain basis, because they are constantly the same under various circumstances; the latter are extremely variable, and subject to all the changes which we find in living bodies. Hence, also, when we have discovered all the bearings of any physical fact, we have still greater difficulties to encounter, for we have to seize and explain the phenomena which arise from the vital properties of the animal frame.

The first idea which naturally occurs to us, under these circumstances, is to study the elements of disease under this twofold character of physical and vital; and it is the former of these which M. Andral proposes to investigate, in connexion with the fluids.

There are three species of animal fluids. 1st. those which enter into the composition of the blood (chyme, chyle, &c.); 2d. the blood itself; 3d. the fluids which are produced from the blood. But it is not sufficient for the pathologist to study these alone; he should examine the immediate component parts of the human body, or the solid materials, as iron, phosphorus, &c., which it is known to contain. Pathological knowledge might be considerably advanced by a discovery of the modifications which these materials undergo, either in respect of quantity, quality, or situation, and organic chemistry has already brought to light several interesting points upon this matter. It is to general pathology that we have also to look for information concerning the alterations of the different elementary principles of the body. These alterations may be examined in the threefold view of quality, quantity, or situation; and sometimes, perhaps, new elements, such as sugar, during diabetes, &c., may be formed. A few examples will illustrate the advantages attending investigations of this kind. We know that albumen enters into the composition of the brain. M. Denis thinks that the quantity of albumen varies with the different periods of life; here is an alteration of quantity. We have not many examples of alterations of quality; new fibrin—that which forms on the clot, after several bleedings—is softer and less resisting than old fibrin. Changes of situation are very numerous; thus we find cholesterine in several of the fluids; albumen in the urine, and in the coagulable lymph effused on the pleura; uric acid combined with soda in the joints of gouty people, &c.

The history of alterations of the fluids may be conveniently distinguished into three parts, viz. the opinions and discoveries of our predecessors; the present state of our knowledge, and the recent progress of organic chemistry; finally, the points which remain in obscurity, and which require further investigation.

One of the most striking points in this historical survey is the immense difference which exists between ancient and modern humoral pathology. From the time of the Greek philosophers, down to the 16th century, a period comprising the first

epoch of humorism, we find nothing but pure hypothesis on which successive systems were constructed. The four humours, the four qualities of bodies about which so much was written in the earlier and middle ages, were simple creations of the imagination to explain disease. The reasoning process, upon which these alterations of the fluids were admitted, was altogether incorrect, and was founded chiefly on the necessity of explaining some diseases that seemed to depend on the fluids; instead of determining by experiment what changes really took place in the fluids, the older pathologists imagined a certain number of alterations, and then built up their theory of disease on them.

During the second epoch of humorism, that is, from the 16th century to the present times, the chemists have aided us much by substituting for imaginary changes those which they discovered in their laboratories; but chemical theories, although more exact than the hypothetical, are still unsatisfactory, because the experiments made in the crucible were not repeated on the living body, and because they neglected, for the most part, the condition of our fluids. Hence, the applications of the chemical pathologists are, generally speaking, erroneous. Modern humorism rests entirely on an observation of facts, and in this respect its followers have done nothing more than imitate the example of pathologists, and extend the dominion of their inquiry from the solids to the fluids. What, in fact, is more natural than to turn our attention to the fluids, when we find that our most careful investigations of the diseased conditions of organs are often insufficient to explain the nature of disease? Chemical experiments, and the microscope, are two of our most powerful means of investigating the intimate composition of the fluids, and the nature of the alterations which they undergo. However, the founders of modern humorism did not, at first, proceed in the strictly experimental method, but applied to the explanation of humoral changes certain data derived from physiology. The blood was supposed to be a complex product of several organs; when these organs were affected, the blood elaborated by them must be altered also. Thus, if the stomach suffer under any serious disease, and the process of digestion be much impaired, the qualities of the chyme are more or less deteriorated; and the same effects are produced by imperfect or unwholesome alimentation. In such cases an alteration of the blood, and of all the fluids, must ensue consecutively, as well as changes in the solids. Proofs of this kind, deduced from physiological reasoning, have much weight; but as they only demonstrate indirectly the alterations in question, we must seek a surer foundation for our doctrines.

The numerous arguments furnished by pathology seem to have exercised considerable influence in the establishment of modern humorism. The most convincing are those drawn from a consideration of the causes of disease. Thus, how can we refuse to admit of a primary change or lesion of the fluids, in all diseases arising from contagion or infection, or in cases where the whole animal economy is acted upon, as in affections produced by bad diet, by crowding of persons together, &c.? In other cases we are led to suppose an alteration of the fluids, from considering symptoms merely. Thus, a certain degree of redness in the skin, turgescence of the vascular system, increased pulsa-

tion of the arteries, have given rise to the idea of plethora, while the existence of opposite symptoms lead to the supposition of an opposite condition of the blood. The efficacy of certain remedies which seem to act especially on the blood, is another argument in favour of the doctrine of alterations of the fluids being a cause of disease.

The progress which humorism has made with the assistance of physiology and pathology has, however, been very slow; a few experiments only have been made; but, as we draw nearer to our own times, we find a much greater number of observers in this difficult branch of science. At first, some attempts were made to determine the variations in the quantity of the blood; afterwards, the various phenomena of the coagulation of the blood, the relative proportions of serum and clot, the thickness and different appearances of the buff—all these were carefully studied. The condition of the urine, mucus, and serum, became the subject of special researches: gradually we find to arise useful works on all these points of humoral pathology. M. Lecannan, in his thesis, published some very interesting conclusions; for example, he showed that in chlorosis the number of blood globules is diminished. MM. Prevost and Dumas also remarked that the number of blood globules diminishes in animals which have been frequently bled. Many other examples might be brought forward to show the importance of this branch of study, and the progress which it has recently made. The microscopic examination of the blood (and other fluids) has also been of much utility, although no very important results, in a practical point of view, have been as yet obtained. From this brief historical sketch, it would appear that we are not, at the present day, much more intimately acquainted with the alterations of the blood than were our predecessors, at the time of Hippocrates, with alterations of the solids. The Greek physician, it is true, and most of those who have followed him, advise us not to neglect the fluids; but for many centuries we find nothing but barren recommendations of this kind, and if we are desirous of really advancing the art of healing in this important matter, we must do for the fluids what has long since been done for the solids. Pathological anatomy reveals to us the minutest alterations in the solid parts of the human body; analytical chemistry must do the same for the fluids. How can we expect to make any real progress, unless we endeavour to separate the elementary particles of the fluids, and determine whether the elements have undergone any change in their quantity and properties? This method has been applied with the happiest results to the solids, and why should we not extend it to the fluid constituents of the human frame? By employing the microscope, chemical agents, &c., in a word, by having recourse to all modern means of investigating the properties of fluids, we may hope to arrive at certain data, and rescue humoral pathology from the obscurity in which it has remained, for ages, involved.

(To be continued.)

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, MAY 20, 1841.

THE retrospect of the progress of surgery, drawn up by Mr. Dodd of Chichester, and read at the Southampton Meeting of the Provincial Association, forms the third address on this branch of medicine, now published in the Transactions of the Association. Two addresses on the same subject, and of a similar character,—those of Mr. Crosse of Norwich, and Mr. James of Exeter,—had been read on the occasion of former anniversaries and although both these were able productions, and were well calculated to support the reputation previously acquired by the writers, it is no disparagement to say that the one delivered by Mr. Dodd is fully entitled to be classed with them. The extensive acquaintance with the literature of the subject displayed by the writer, is only equalled by the sound judgment and practical good sense which characterize his remarks. The advantages gained by a division of the annual retrospect, and the allotting of the one subdivision to a physician and the other to a surgeon, are manifest. The undivided attention of each is bestowed upon his own department, the subjects are more familiar to the respective writers, and a practical bearing is thus given to the observations, with which the various points entered upon are illustrated, which adds greatly to their interest and value, at the same time that an air of originality is thrown over what must otherwise partake very much of the character of a mere compilation. Mr. Dodd considers, in succession, the recent acquisitions to our knowledge made in descriptive anatomy, in physiological anatomy, embryology, surgical pathology and practice, ophthalmic surgery, and midwifery. The additions to our knowledge of anatomy are not numerous, but among the more important we find mentioned the discovery by Pappenheim of the nerves of the cornea, which he has succeeded in demonstrating in a very ingenious manner, and Dr. Lee's account of the fasciculated bands in the gravid uterus, apparently partaking of the characters of plexus and nerves, although the author hesitates to so designate them until further investigations shall have been made. The subject of general or physiological anatomy, Mr. Dodd, by previous arrangements we presume, leaves for the most part to his colleague, Dr. Scott, but takes occasion to refer to several points of interest, more especially to the researches of

Sir Astley Cooper on the mammary gland of the male; to those of M. Donné, on the microscopic structure of the milk; to the experiments of Professor Syme, on the formation of bone; and to the valuable contributions of Mr. Nasmyth and Professor Owen, on the microscopic structure of the teeth. The investigations lately made and still carrying on into minute anatomy, by the aid of the microscope, are among the most interesting and important which the present age has given rise to; and although the practical results have not as yet prominently appeared, there is every reason to expect, that as observations multiply and facts accumulate, much light will be thrown upon those molecular changes, both in the solids and fluids, in which the first steps of organic degeneration must consist. Now that the exclusive solidism, which, after its first victory over the humoral pathology, obtained so entirely the possession of the schools, is no longer in the ascendant, and that the oscillations of theoretical reasonings are becoming less aberrant, it is seen that any exclusive theory, which altogether rejects from its speculations the consideration of apparently opposing points, is based upon a false foundation, and has a partial application only. Truth generally lies in the mean; the danger is, that in the transition from the extreme of error on the one side, the limits within which correct views lie may be passed, and the fallacies of hypothetical reasoning be carried as far on the opposite extreme. This has already been the case for ages in regard to the multiplied theories and hypotheses with which the annals of our science abounds. The exclusively vital, organic, and humoral pathologies have each in its turn prevailed, but rarely has the truth been recognised, that the fluids and solids may be each and equally the seat of morbid changes, or that the powers of the living organism must modify or affect the whole. The researches of M. Donné, however, would seem to be attended with an immediate practical result. According to this observer, a molecular change, capable of being detected by the microscope, takes place in the milk, when the secretion becomes disordered by the state of health of the mother. Upon this change it is asserted that chemical analysis throws no light. During the first month of lactation, the proportion of solid matter, in the form of globules, gradually increases; and it is a curious circumstance, as Mr. Dodd remarks, that in the colostrum these globules are not perfect in their form, and are agglutinated together by a mucous substance which envelopes them; but, as the milk progresses in its nutritious character, become distinct, separate, and correctly rounded. The same crude state, if the expression may be allowed, of the molecular

structure occurs also in fever, and the presence of distinct and well-formed globules is considered by M. Donné to be of essential importance, in directing the choice of a nurse. "If," it is observed, "the colostrum state of the globules, i. e. the state of agglutination, persists, after the few first days the milk remains poor and innutritious. On the other hand, in some instances the globules are too numerous, and the milk, consequently, too rich; and it is remarkable, that this property of the milk is more considerable the more frequently the milk is drawn, and that retaining the milk in the breasts beyond the usual time, diminishes the relative proportion of globules, and, consequently, corrects its too nutritious properties; a fact, the knowledge of which may be most beneficially applied to the management of weakly children." In commenting upon this subject, Mr. Dodd mentions a curious circumstance respecting the action of milk upon the litmus test, which we do not remember to have seen noticed before. He states, "that milk, recently drawn from the breast, not only restores the blue colour of litmus previously reddened by a weak acid, but on the other hand will faintly *redden* litmus itself." The cause of this curious anomaly is not very apparent.

An interesting, though, of necessity, a condensed account of the recent investigations on the structure and development of the ovum is given by Mr. Dodd, in which he alludes to the researches of Dr. Martin Barry, and to those of Schleiden and Schwann, on the primitive vesicular form of the embryo, both in the animal and vegetable tribes; to those of Baer, Valentin, and others, on the number of envelopes of the ovum in the mammalia; to the interesting cases recorded by Dr. Lee, of the development of the deciduous membrane within the fallopian tube; to the investigations of Dr. Allen Thompson, on the successive development of the parts and organs of the fetus in utero; to the observations of Dr. Lee, Mr. Bloxam, Dr. Cumin, and M. Bonamy, upon the mode of connexion between the uterus and placenta; to the writings of M. Isidore St. Hilaire, on the occasional deviations from the normal type in the development of the ovum; and to the interesting paper of Dr. James Simpson on intra-uterine pathology. These researches, together with those of other observers, have thrown much light upon the development of the embryo, its structure and progressive organization, and even its diseases, from the most simple primary germ to the period when the embryonic life terminates, and a new stage of existence commences. Here, also, is a field of research newly broken up, and capable of yielding the richest returns to its cultivators. From investigations on the embryo,

whether of the animal or vegetable tribes, we may anticipate results which, from their important bearings on medical and general philosophy, must ever be of the highest interest. The progress recently made, looking at the number and the character of the facts accumulated, is truly great; but regarding the nature of the investigation, its wide extent, the numerous and extensive points of connexion which it exhibits to other branches of science, what has hitherto been done amounts to little more than a preliminary survey, aided by a few experimental trials calculated to determine merely the character of the investigation required.

On subjects more purely practical, Mr. Dodd gives much information, illustrated by many valuable observations derived from his own immediate experience. Various diseases of the bones and joints, fractures, and dislocations, the new operations for division of the tendons, injuries of the head, hernia, lithotripsy, diseases of the bladder and urethra, syphilis, aneurism and varices, varicocele, the amputation of gangrenous limbs, tumors, cancer, and bronchocele, are the subjects upon which either new observations and improvements have been made, or important points confirmed, and special modes of treatment successfully followed out. It is neither possible nor necessary for us to follow Mr. Dodd through the details which he has here collected; we content ourselves with a brief reference to one or two points, upon which he gives the result of his own personal experience. We cannot, however, pass over his reference to the account given by Dr. Löwenhardt of Prenzlau, of a diseased state of the lower jaw produced by the irritation of the wisdom-tooth, bearing, as it does, on the admirable clinical lecture on the same subject, by M. Velpeau, reported in our thirty-second number. A notice of Dr. Löwenhardt's Essay will be found in the *British and Foreign Medical Review* for October 1839, as well as an interesting case of the affection extracted from the *Boston Medical and Surgical Journal*, to which Mr. Dodd likewise refers. In the early stage of the disease the removal of the last molar tooth but one is attended with the effect of allowing room for the impacted tooth, and will usually relieve the sufferings of the patient; but when the long-continued irritation has produced caries of the jaw, the amputation of a portion of it becomes necessary. In his remarks upon Dieffenbach's operations for the division of the tendons, in various cases of deformity, Mr. Dodd takes occasion to point out the injurious effects likely to result from the early or injudicious employment of instruments. Mr. Dodd has often seen the limb materially injured

by this means from the due action of the muscles being impeded, while the deformity, which was at first partial and limited, has become more general, instead of being cured. When the defect is early brought under the notice of the surgeon, Mr. Dodd recommends mere manipulation, and has several times succeeded in modifying and correcting the development of the limb by the use of repeated frictions with the hand, due care being taken to prevent the child's commencing to walk in a defective manner. On the disputed question of the period at which amputation should be performed after severe injuries, where gangrene threatens or has actually taken place, Mr. Dodd states that he has several times amputated while the gangrene was progressing, and has been fortunate enough never to have had the stump attacked with gangrene in consequence. In two instances, it is observed, the cellular tissue of the stump was even emphysematous at the time of operation, but some slight degree of suppuration and sloughing of the cellular tissue was the worst result. This practice, though contrary to the opinion of many eminent surgeons, is in accordance, as our readers know, with that followed by Messrs. Lawrence, Green, and others, who, as Mr. Dodd remarks, do not hesitate to amputate in almost any stage of the gangrene, when there is sufficient space in the living parts to admit of the performance, of the operation. In alluding to the recent tying of the subclavian artery, for secondary hæmorrhage after amputation at the shoulder-joint, by Mr. Stafford of Hailsham, and to the performance by Mr. Wickham of Winchester, of Mr. Wardrop's modification of Brasdor's operation in a case of aneurism of the *arteria innominata*, Mr. Dodd says, "I feel particularly called upon to notice the two last cases; indeed, it is with a proud fellow-feeling of gratification that I am thus enabled to bring before your notice the achievements of two provincial surgeons. How greatly are the times now altered since the metropolis was considered as the monopolizer of all surgical talent! It would ill become me to say much on this subject; but I must be permitted to observe, that, perhaps, no change in our profession, among the rapid movements of the last fifty years, is more striking than the alteration in the character of the country surgeon. From the mere apothecary, little better than the empirical prescriber of the drugs he sold, he now takes the rank of a scientific cultivator of his profession. The establishment of provincial hospitals in all parts of the kingdom has, doubtless, been one of the principal means of elevating his character, and he now glories in his position, in the same rank with a Hey, a Hodgson, and a Parke. May their

example be our stimulus, and a portion of their honours, however small, our reward!"

In the justice of these remarks we fully coincide, and it is no small boon to suffering humanity, that the provinces are now so well provided with practitioners every way so competent. The reader of the essay before us cannot fail to observe that every page evidences a full acquaintance with the subject, and the possession of powers on the part of the writer, which must enable him to emulate and compete with the eminent surgeons whose merits he so justly eulogizes. The address, throughout, is characterized by sound judgment, displayed both in the selection of the materials and in the general tenor of the accompanying observations, and is equally creditable to its author and to the volume of Transactions in which it appears.

VACCINATION ACT.

Our readers will peruse with equal astonishment and indignation the report of the line of conduct which the Editor of the *Lancet* has been pleased to pursue, relative to the "Vaccination Act Amendment Bill." Such an utter abandonment of principle on the part of the "English Cato" can only be accounted for on the theory of "*quem Deus vult perdere, prius dementat*;" or of the apposite proverb, "set a beggar on horseback, and he will ride to, &c."

The history of the transaction is briefly as follows:—The introduction of the Vaccination Act Amendment Bill was thought to afford a favourable opportunity of aiming a blow at two of the worst features of the Poor-law Act; viz. the contract system, and the power conferred on guardians of employing any one, whether qualified or not, as medical attendant of the poor. In order to attain so desirable an object, Dr. Maunsell and Dr. Nugent, delegates from the Irish Association, prepared, we understand, the two clauses which are printed in our report: the objects of the clauses were—1st, to abolish the contract or tender system; and 2nd, to prevent poor-law guardians from employing any but qualified medical men.

The carrying of these two clauses was of immense importance, because, if once admitted as principles of legislation in any particular act, they might, at some future opportunity, be adopted in other measures of more extensive application. Mr. F. French kindly undertook to propose the addition of those clauses to Mr. Maule's bill, and we believe it was generally understood that they would be adopted and made part of the law of the land, unless some influential member of the house should oppose them.

The objects of the clauses were, we repeat, most distinctly explained by Mr. French. Mr. Wakley has been one of the loudest and most persevering advocates of them, in his journal; yet, when an opportunity was afforded of really serving the profession—of crushing the detestable system of tender—of rescuing the public from the hands of the charlatan, then was the voice of the Editor of the *Lancet* raised to belie the principles of a long public life, and aid in perpetuating the worst, the most degrading of abuses.

We shall return to this subject again.

THE PHARMACEUTICAL SOCIETY.

A MEETING of several physicians, surgeons, and druggists, was held on the 12th of May last, at the house of Mr. Jacob Bell, who read to them a paper on the constitution of a Pharmaceutical Society. This Society has been established; its ultimate objects are—

"The union of the chemists and druggists of Great Britain into one ostensible, recognised, and independent body—the protection of their general interests, and the advancement of the art and science of pharmacy."

For the attainment of these objects, a school of pharmacy is to be established, and a regular course of study is to be instituted for the members of the Society, and more particularly for those who will in future enter on the business of a chemist and druggist. The Society also proposes to assemble periodically, for the purpose of scientific discussion, and reading papers on such matters as relate to their daily avocations and researches. In thus founding a scientific body for the improvement of pharmaceutical chemistry, Mr. Bell disclaims all idea of interfering with the Apothecaries' Company, and observes, that

"If apothecaries and druggists would, with a desire for mutual benefit, meet together and adjust their grievances, in such a manner as to obviate the evils complained of on both sides, the result would tend to extinguish all existing jealousies, and promote the harmony and prosperity of the profession at large.

"So far from placing chemists and druggists in an invidious or adverse position with reference to the medical profession, the obvious tendency of the Pharmaceutical Society will be to separate pharmacy from the practice of medicine, by placing it on its own basis, and upholding it on its own merits."

Were the principles put forth in Mr. Bell's address to be strictly acted upon, there is no doubt but that the institution of a Pharmaceutical Society would be attended with many advantages, and receive the support of a large portion of the profession; the plan proposed will, certainly, secure compounders from mistaking calomel for arsenic, and opium for liquorice; but it seems strange that no means are alluded to for remedying the great evil of which prescribers and the public complain, viz. the adulteration of drugs. Unless some

method be devised for a due supply of genuine remedies, it would be far better to trust the cure of disease to the healing hand of nature, than to disturb her operations by villanous compounds, miscaled medicines.

HOUSE OF COMMONS.

VACCINATION ACT AMENDMENT BILL.

Thursday, May 20.

Mr. Fox Maule moved the original clauses in a committee of the whole house.

Mr. F. French moved the addition of the following clauses:—

"(Guardians and overseers to appoint medical practitioners to vaccinate, at an annual stipend.)

"And be it further declared and enacted, That it shall be lawful for the guardians of every parish or union in England and Ireland, and the overseers of every parish or union in which relief for the poor shall not be administered by guardians, and they are hereby directed, to employ any legally qualified medical practitioner or practitioners for the vaccination of persons resident in such parishes or unions respectively; and to appoint and pay such reasonable annual stipend or remuneration for the same as to the said guardians or overseers shall seem fit, and to defray the same out of any rates or monies which may come into their hands respectively for the relief of the poor, anything in any other act contained to the contrary notwithstanding.

"(Who shall be deemed a competent medical practitioner.)

"And be it further declared and enacted, That no person shall be deemed to be a legally qualified or competent medical practitioner, within the meaning of the said recited act or this act, who shall not be duly authorised by some university or college, or other public body, having authority in that behalf, to practise medicine or surgery."

He said, the object of the first clause was to enable the guardians to employ medical men to vaccinate the poor without subjecting those gentlemen to the degradation of the contract and tender system—the adoption of which being, according to the act, compulsory, great offence had been thereby given to the medical profession, and in many instances, as for example, in Ennis, Wexford, Fermoy, and Kinsale &c. unions, the act was inoperative, from the dislike of medical men to carry it into effect; this dislike would be removed by enabling guardians, where necessary, to employ vaccinators, at a small annual stipend, when it might be necessary so to do—an option which might be conceded without imposing any additional expense—probably at a less expense than under the present plan; and the guardians and commissioners would always have it in their power to demand returns, and thus to check and control the medical men. As to the unsatisfactory nature of the present plan there was abundant evidence in the number of petitions for a change, which had been presented. (One of these from the College of Surgeons in Ireland, the honourable member here read.) With regard to

the second clause, its object was to define, in a general way, the meaning of the words "medical practitioner." In the act, two descriptions are given of the persons who should be employed as vaccinators. In the first clause it is enacted, that in England and Wales, the medical practitioner should be "legally qualified," while in the sixth clause, which relates to Ireland, it is enacted that the practitioner should be "competent," a discrepancy which gave rise to many inconveniences. In this proposed clause he had adopted a definition already introduced in the Factories Bill, which was sufficiently loose to admit every person having any legal claim to be considered as a medical practitioner.

Mr. F. Maule regretted he could not agree to the introduction of these clauses, as he had brought forward the bill under a pledge that it should only go the length of remedying two defects in the original act. The proposed clauses would alter the principle of remuneration, and would also open up the difficult question of medical qualification.

Mr. Wakley questioned the Hon. Under Secretary would not agree to the proposed clauses. The question had already been fully discussed, and the principle adopted that the payments to medical men employed as vaccinators under the act should be in proportion to the amount of labour done. It must be recollected that inoculation with small-pox had been made penal, and it was therefore necessary that it should be made the interest, as well as the duty, of medical men to seek out cases for vaccination, which they would not do, if, as was now proposed, their remuneration should be made irrespective of the number of persons whom they might successfully vaccinate. He would, therefore, oppose the introduction of the clauses.

Mr. Warburton also opposed the introduction of the clauses, which were negatived without a division.

The bill was then committed.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 11, 1841.

Dr. WILLIAMS, President.

READ, COLICA PICTONUM, TREATED WITH WARM WATER. BY JOHN WILSON, M. D., PHYSICIAN TO THE MIDDLESEX HOSPITAL.

In this paper the author, after referring to the complicated treatment of the disease pursued at the hospital of La Charité, proposes to illustrate two of the remedies there used in combination, namely, enemata and hot-baths.

In six cases of colica Pictorum, some of them of much severity and complicated with paralysis, Dr. Wilson has employed enemata, administered in the hot-bath, in one case by the patient himself, and consisting of the water of the bath. The effect of this combination has been very successful, both in regard to the symptoms of pain and constipation, and to the paralysis, where that existed. In the course of his statements, the author notices the presence of looseness of the gums, blueness of their edges, and a foetor like that of mercury, where

none had been taken; and informs us that he has noticed this latter circumstance in other cases of colica pictorum. He next details a case of constipation not attributable to lead, in which the above remedies had proved equally successful.

In some of the above cases this treatment is used alone; in others it is followed up by doses of pil. saponis cum opio, of oleum ricinum with tincture of opium, or with a solution of sulphate of magnesia, with carbonate of magnesia in mint water.

READ, RESULTS OF AMPUTATIONS AT UNIVERSITY COLLEGE HOSPITAL, BY JOHN P. POTTER, ESQ. COMMUNICATED BY MR. LISTON.

Feeling that the only chance of arriving at any safe and satisfactory conclusions in medical statistics depends on the number and accuracy of reports and cases from which such conclusions are to be drawn, the author has examined the report-books of University College Hospital, and collected all the cases in which amputation has been performed since the opening of the institution, on the shoulders, arm, forearm, wrist, thigh, and leg. These he has arranged in the form of tables, and has subjoined a few remarks on the mode of amputation which has been adopted, and the method of dressing which has been observed.

The number of cases from the last day of June, 1836, to the termination of the year 1840, has been 66; and of these, 56 proved successful, whilst 10 have been attended with fatal results, at a variable period of time after the performance of the operation.

Of the 66 cases, 11 were subjected to amputation on account of severe compound fractures, and other injuries, within twenty-four hours after the occurrence of the accidents. Of these, three terminated fatally in seven, eleven, and forty-eight days respectively. In the first of the three, both legs were amputated. The remaining seven cases recovered in periods varying from twenty-three to one hundred and forty-six days.

In the remaining 56 cases, amputation was performed on account of long standing disease, or for injuries, in which an attempt had been made to save the limbs. Of this number only seven died. The statistical part of the paper is followed by observations at some length on the mode of amputation, and the system of dressing the stumps pursued at the hospital.

READ ALSO, A CASE OF MALPOSITION OF THE KIDNEYS, AND ABSENCE OF THE VAGINA, UTERUS, AND FALLOPIAN TUBES; BY R. BOYD, RESIDENT PHYSICIAN TO THE ST. MARYLEBONE INFIRMARY, LECTURER ON MEDICINE. COMMUNICATED BY MR. PERRY.

The patient was 72 years of age, and died lately in the workhouse of St. Marylebone, nothing being known of her previous history, beyond the fact that she had been married, and had not lived on amicable terms with her husband.

On dissection, the right kidney was found in the right iliac fossa, below the cæcum, and received its artery from the right iliac, close to the aorta. The left kidney was in the pelvis, resting on the sacrum, and the origin of the pyriform muscle. An artery which arose from the aorta at

its bifurcation, entered its upper end; another of larger size, penetrating the gland in the usual situation, being derived from the internal iliac.

Notwithstanding the unusual malposition of the kidneys, the renal capsules were in their normal situation—a fact, which appears to favour the views of Mr. Gulliver as to the function of the latter organs. From that gentleman's observations, it would appear that the renal capsules secrete a peculiar matter, which may be found in the veins, from which it would follow that these organs are glands, to which the veins serve as ducts.

The uterus and Fallopian tubes were entirely wanting, and the vagina was represented by a cul-de-sac half an inch in depth. The right ovary was healthy, but the left was converted into a fibrous body, of an irregular globular shape. The paper was illustrated by a preparation and drawing of the genito-urinary organs.

ACADEMY OF SCIENCES.

Paris, May 17.

EXTIRPATION OF THE SUB-MAXILLARY GLAND.

BARON LARREY read a report on this case, which was communicated by M. Colson. The patient had been affected with cancer of the lower lip, accompanied with a large tumor under the jaw, which was supposed to be a lymphatic gland. On attempting to remove it, however, it was found to be the sub-maxillary gland, changed into an encephaloid mass. The operator was compelled to divide the lingual branch of the fifth nerve, and the submental artery. The patient recovered.

NERVES OF THE UTERUS.

M. Jobert read a memoir on the nerves of the uterus. The author appears to have been entirely ignorant of the work of our countryman, Dr. Robert Lee, on the same subject. Amongst other facts, M. Jobert notices the total absence of nerves in the projecting portion of the neck of the uterus, and hence concludes, that it is devoid of sensation, an opinion quite opposed to that of most practitioners. (In Dr. Lee's plates, the neck of the uterus is seen furnished with numerous nerves). Having laid down this fact, M. Jobert deduces from it several conclusions relative to the treatment of diseases of the cervix uteri. He cites several cases, to show that if we take care to protect the adjacent tissues, we may employ the actual cautery to the neck of the uterus without exciting any pain. M. Jobert affirms that the nerves of the uterus never undergo any change at different periods of life, and points out the causes which have led some anatomists to believe, erroneously, that they become enlarged during uterogestation. In support of this opinion, M. Jobert presented several plates of the nerves in young females, in old women, and in females at the different stages of pregnancy, and infers from them that in these different states the uterine nerves are constantly the same.

GUY'S HOSPITAL REPORTS.

APRIL, 1841.

THE principal articles in the last volume of this excellent collection are:—1. Observations on Epilepsy, by Dr. Babington. 2. Statistical Report of the Lying-in Charity, by Mr. Lever. 3. On Electricity, as a Remedial Agent, by Dr. Bird. 4. Observations on the Absorption of Metals into the Blood, by Mr. Taylor.

EPILEPSY.

The objects of Dr. Babington's paper are to furnish some illustrations of epilepsy; to offer some reasons for thinking that it depends on a functional change; and, lastly, to furnish some grounds for the belief that it often admits of cure.

The author relates several cases of epilepsy occurring at different ages and under various circumstances, and then offers some remarks on the nature and treatment of the disease. We may endeavour to investigate the nature of this disease, (says Dr. B.,) by comparing it with other analogous states; by observing the constitutions, age, sex, &c. of people liable to it; by considering its symptoms and pathological anatomy, or by the effects of remedies on it. Pursuing this plan, the author first compares the epileptic state with sleep, and shows that, in both, consciousness is lost; the immediate effects of sudden and extreme fear have sometimes a very considerable resemblance to a slight epileptic attack. Again, the author sees a strong analogy between the attributes of the sensorium and the functions of the nerves. Profound coma is analogous to paralysis; certain disordered states of the mind resemble chorea; the sudden affection of the brain in epilepsy bears an analogy to muscular spasm or cramp. Hence, from an analogy of cause, the author concludes, that the changes which are effected are also analogous, and this change he supposes to be some temporary alteration in the arrangement or position of the nervous particles, and not an organic lesion of the brain. The effects of repeated attacks of epilepsy, and post-mortem appearances also, seem to lead to the same inference. Finally, if we consider the effects of treatment, we shall find that, with some exceptions, the same class of remedies which is best calculated to give tone to the system under tic doloireux, and spasmodic states of the motor and sensitive nerves, is also most applicable to this disease. Dr. Babington prefers the sulphate of zinc. It is soluble in two parts and a half of cold water, and may be conveniently administered in solution. In one case, the dose was gradually carried to thirty-six grains, three times a day, without its producing any sickness or other untoward effect.

GUY'S HOSPITAL LYING-IN CHARITY.

1833 to 1840.

The lying-in charity attached to Guy's Hospital was founded, in the year 1833, by the treasurer. Amongst many other regulations of this useful institution, it is ordained that each pupil must give into the office of the charity a report of the labour, stating its nature, &c., and if requisite, a daily account of the symptoms, treatment, &c. of the case. From these data, Mr. Lever has been enabled to draw up a most valuable statistical account of the charity during seven years; we

regret that our limits permit us to notice the chief points only.

From the year 1833 to 1840, the number of women attended by the pupils amounted to 4,666. The ratio of still-born children was 5·6 per 100; in Dublin, the ratio is 6·7; in Berlin, 5; in Paris, 5·6.

Presentations.—Of the 4,666 labours which occurred, 4,290, or about 92 per cent. were natural. The proportion of vertex presentations was 99 in 100; face presentations occurred in 1 of 179 cases.

Premature Labours.—Fifty-five labours were premature, but of these 6 were induced; the spontaneous labours gave a ratio of 15·2 still-births per cent; only one child was saved by inducing premature labour.

Protracted Labour.—This occurred in 62 women; the chief causes were imperfect uterine action; rigidity; disproportion of parts; and ossification of the foetal head, not admitting of compression. The ergot of rye was administered in 16 cases only; the remedy acted speedily and effectually. The number of cases in which the vectis, (12,) forceps, (9,) and perforator, (25,) were used, amounted to 46, giving a proportion of 1 in 101 cases. The only other institutions in which instruments were less frequently employed are at the Maternité, Paris, Mme. Boivin, (1 in 183,) and the Dublin Hospital, under Dr. Collins, (1 in 114).

Preternatural Labour.—These cases amounted to 2·23 per cent.; in Dublin, they were 3 per cent.; at Guy's Hospital, the still-births, in such cases, were 54 per cent.; in Dublin, 45.

The proportion of twin cases was 1 in 141; in Ireland the proportion is 1 in 62; thus more than twice as many women have twins in Ireland.

Placenta.—Cases of presentation of the placenta were frequent; in 9 cases, the placenta entirely covered the os uteri; in 5, partially; in all, delivery was accomplished by the operation of turning. Two of the cases terminated fatally. Retention of the placenta occurred in 37 cases; in 15, there was morbid adhesion; in 12, to the anterior and upper part of the uterus. The ergot of rye was employed in the majority of cases with effect, where there was no adhesion.

Puerperal Convulsions.—Four cases of this distressing complication occurred, being in the proportion of 1 to 1,166; all the mothers recovered, and all the children were born alive.

Rupture of the Uterus.—Three cases of laceration of the uterus are reported as having happened during the seven years embraced in the report; or in a proportion of 1 to 1,555 cases; in the first, the only one examined, there was old chronic disease of the uterus, and the laceration took place at the diseased point. In the second, laceration seemed to have arisen from violent action of the uterus, and Mr. Lever regrets that tartar emetic, in full nauseating doses, had not been tried in this case, for he regards this remedy, of all others, as having the greatest power in controlling uterine action. In the third case, the accident was probably occasioned by an Irishman who, in order to accelerate labour, actually treated the unfortunate patient as he would a paviour's rammer.

Flooding.—The number of cases of flooding amounted to 51, or 1·09 in 100. The total mortality during the seven years was 40, or 1 in 117 cases. In the Dublin Hospital the proportion of

deaths is 1 in 100. Puerperal fever was the cause of death in a great majority of the cases, of which Mr. Lever gives a brief abstract.

REMEDIAL EFFECTS OF ELECTRICITY.

In October, 1836, Mr. Harrison, the treasurer of Guy's Hospital, appropriated an apartment in the hospital for the purpose of submitting patients to electrical treatment. Dr. Bird furnishes us with the results of the experiments there made, which are the more interesting, because, as he justly observes, we have no accounts on a large scale of the effects of this agent, save some that partake too much of empiricism to be worthy of confidence.

The diseases in which the most satisfactory results were obtained, are chorea, paralytic affections, and amenorrhœa. Dr. Bird gives a tabular analysis of 36 cases of chorea treated, almost exclusively, by electricity, for in many of them the medicines administered were confined to occasional mild purgatives. Nine illustrative cases are related, at the conclusion of which we find the following remarks:—

"It may now be asked, in what light is electricity to be regarded, in the treatment of chorea, and certain involuntary motions of the voluntary muscles analogous to those occurring in this disease? From the results of the cases treated at Guy's Hospital, no doubt can remain on the mind of any one, that electricity really exerts a decided, not to say specific, influence on these affections: and although, on its first application, all the symptoms often become increased, from, probably, the timidity of the patient, and the novel character of the remedy, yet, where it has been persevered in, in thirty-five of the thirty-six reported cases, it has either completely cured, or greatly relieved the patient. As I feel extremely unwilling to recognise the existence of more specific agents than necessary, I would venture to suggest that electric sparks, when drawn from the spine, may act by the irritation they produce: and this appears countenanced by the fact, that the rapidity with which the patient's symptoms are relieved is nearly in a ratio with the facility with which the peculiar papular eruption makes its appearance. If future experience should countenance this view, the remarkable influences exerted by electricity in the treatment of chorea may be referred to the principle of counter-irritation. It may next be inquired, whether, in the treatment of chorea, we ought to trust to electricity alone? In answer to this, it may be stated, that I have repeatedly treated severe cases of this disease successfully with this agent without the administration of any medicine at all; and in the majority of the thirty-six cases in the Table, no internal medicine, except an occasional purgative, was administered during the electrical treatment. Still, it is obvious that, in many cases, the disease is kept up and excited by the irritation produced by some deranged function; and this of course it will become the duty of the physician to set right, before or during the application of the electricity. The case of Eliza Raven affords an interesting illustration of this: here the chorea either depended, *ab initio*, upon the non-performance of the uterine functions, or was kept up by it; and, accordingly, a few electric shocks through the pelvis, by restoring the deficient menstrual discharge, at once cured the patient."

PARALYSIS.

Paralytic affections constitute a prominent feature in the cases which have been referred to the electrical room of the hospital: of these forty-four cases have been fully reported by the clinical clerks, and may be found on record in the hospital books. Of these cases it may be generally remarked, that those in which the paralysis, whether of sensation or motion, or both, depended upon exposure to cold or rheumatism, upon some functional affection often of a local character, or upon the impression produced by effusion in some part of the cerebro-spinal centre which had become absorbed under the influence of previous treatment, the result of the application of electricity was most successful; whilst in those cases in which the paralysis depended upon some persistent structural lesion, whether produced by accident or otherwise, the slightest beneficial result was never obtained.

In the treatment of these cases, electricity was generally employed in the form of sparks drawn from the upper part of the spine, so as to exert its influence over the origin of the spinal nerves forming the axillary plexus. In the majority of cases, medical treatment was also employed; as, in general, the subjects of this particular disease are always deranged in health; the functions of the digestive organs being imperfectly performed, especially as in most the patients had been previously the subjects of colica Pictorum.

In cases where the general health was not much deranged, the use of electricity over the spine, and drawing a few sparks occasionally from the paralyzed extensor muscles of the wrist and hand, with the exhibition of an occasional laxative, was generally remarkably successful. But in those instances in which the patient was of cachectic habit, and the constitution deranged by previous or existing functional derangement of the digestive organs in particular, electricity was of no service, or, at most, of doubtful efficacy, until the deranged functions had been relieved by the remedial measures employed.

In cases of the dropped hands of painters, the conditions before mentioned being borne in mind, the electric sparks drawn from the region of the cervical and dorsal vertebrae were generally efficacious in at least aiding, if not effecting, a recovery. They were generally drawn from the paralyzed parts; and, in recent cases, small shocks, transmitted along the course of the affected nerves, considerably accelerated convalescence: but in chronic cases a cure was often effected by drawing sparks from the spine, on alternate days, for weeks, after shocks had been passed along the paralyzed parts in vain.

Cases of rheumatic paralysis are by no means unfrequent in practice, and are readily distinguished, on careful investigation, from those which depend upon cerebro-spinal lesion. The cases most readily confounded with them are those in which the legs or arms appear paralyzed, but in which the inability to move the limbs depends rather upon the pain produced by motion than upon any real want of power. The common history of these cases is, that a person after exposure to damp and cold, and sudden alterations of temperature, suffers from a slight febrile attack, followed by inability to move one or other of the limbs, and often a single leg or arm, if either of these have been ex-

posed to the influence of a draught or current of air. In general, sensation remains either slightly or not at all impaired, but the paralysis of motion is generally tolerably perfect. This state may continue for an almost indefinite period; and at length, from want of exercise, the muscles of the affected limb become atrophied, and the chance of relief from treatment of any kind becomes proportionably diminished. In cases of this kind, before this wasting has occurred, Dr. Bird assures us that the influence of electricity is very remarkable, frequently restoring power to the paralyzed muscles in a very short time.

AMENORRHOEA.

Scarcely any cases were submitted to electrical treatment in which its sanatory influence was so strongly marked as in those in which the menstrual function was deficient. The rule for insuring success in the great mass of cases of amenorrhoea is sufficiently simple:—improve the general health by exercise and tonics; remove the accumulations often present in the bowels by appropriate purgatives; and then a few electric shocks, often a single one, will be sufficient to produce menstruation, and at once to restore the previously deficient function. It is for want of attending to this rule that so many cases have been said to have been unsuccessfully treated by electricity; to this treatment Dr. Bird would oppose all the experience acquired from the cases treated in the electrical room of Guy's Hospital; for, with but one or two exceptions, every case in which the general health was not too severely deranged, as by chlorosis, was successful.

The mode of applying the electric shocks is the following. Let the patient be placed on a chair or stool: press the brass knob of a director against the sacrum; and if the stays be loosened, so that only the linen intervenes between the latter and the knob, no farther exposure is necessary. A second director, furnished with a chain connected with the outside of an electric jar, is passed by the female attendant under the patient's dress, and the knob pressed against the pubes. The jar is then charged; and its ball touched by a third director, connected with the one held against the sacrum by means of a chain. The shock thus passes through the patient's pelvis, and should be repeated ten or a dozen times. The jar employed should hold about a quart, and be about half charged.

In illustration of these remarks, the author gives a table of 24 cases of amenorrhoea treated by electricity; of these four obtained no relief; the remainder were perfectly cured.

FOREIGN MEDICAL LITERATURE.

HYDROCHLORATE OF BARYTA IN SCROFULA.

By M. PAYEN.

THE hydrochlorate of baryta has been, by turns, condemned and extolled, as a remedy for scrofula, by various writers; according to M. Payen, those who reject and those who praise it may be both right; for the efficacy or injurious effects of this remedy will depend on the circumstances under which it may be employed. M. Payen divides scrofula into two species; in one of these the

remedy is highly beneficial, in the other injurious. If we look to the mode of action of the baryta, we shall soon perceive that it is quite contrary to that of other anti-scrofulous remedies. The latter are commonly excitants; they stimulate the circulatory organs; they give tone to the body. The hydrochlorate of baryta, on the contrary, is a sedative or contra-stimulant. Now, although scrofulous affections generally occur in persons of lymphatic temperament, we cannot deny that they may also become developed in individuals of an opposite constitution; and hence, in treating scrofula, we should adapt our remedies to these different states of the constitution. Under this point of view, the use of hydrochlorate of baryta should be limited to those cases of scrofula which are accompanied by signs of an increased organic activity, or which occur in persons of irritable constitution. For example, in scrofulous ophthalmia, characterized, as it usually is, by great irritability of the visual organ; in scrofulous arthritis with severe pain; in glandular tumours occurring in persons who are not lymphatic, &c., the remedy may be employed with great benefit.

In illustration of the above doctrine, M. Payen relates twelve cases of scrofula treated successfully, after various other means had been tried without avail. In these cases the amendment was so rapid, that no doubt could exist of the efficacy of the remedy. The author employs a solution of baryta, (one, two, or three grains, to three ounces of water,) and gives a spoonful every two hours. Every two or three days the strength of the solution is to be increased by one grain; in some cases, the dose was carried to seven grains in the day, without producing any unpleasant effect.—*Gas. Med.* No. XXI.

ON NITRATE OF POTASS, IN LARGE DOSES, IN ACUTE RHEUMATISM.

By M. ARAN.

THIS very interesting memoir contains twelve cases of acute rheumatism successfully treated with nitrate of potass in high doses. In the year 1764, our countryman, Richard Brocklesby, first introduced this practice; he gave, often, ten drachms of nitre in the twenty-four hours. In 1774, William White spoke highly of the advantages of this remedy, which he administered in doses of an ounce and a half to two ounces during the day. He says that it is equally efficacious in chronic rheumatism. In the years 1833 and 1839 the same mode of treatment was adopted by MM. Gendrin and Martin Solon, and it is the result of the observations collected under these gentlemen that M. Aran has embodied in his memoir. We cannot find space for any of M. Aran's cases, but extract his concluding remarks.

The experiments made under the superintendence of MM. Gendrin and Solon show that,

1. Twelve patients, labouring under acute articular rheumatism, (three with endocarditis or pericarditis,) were completely cured in an average of eight days from the time of treatment, and fourteen from the time of attack.

3. The mean quantity of nitre administered, within the twenty-four hours, was seven drachms and fifty-four grains, dissolved in three quarts of fluid.

3. The mean quantity administered during the whole course of the disease was about eleven ounces.

Effects.—The chief effects of the nitre administered in the way mentioned by M. Aran, were copious and frequent perspiration; occasionally copious stools, but less frequently abundant secretion of urine; the pulse soon lost its quickness, and the affection of the joints rapidly become less severe.

Digestive Organs.—During the whole course of the treatment, the tongue remained moist; the thirst moderate; the appetite was never entirely lost; some patients were even very hungry. One patient had nausea for one day; another vomited once or twice; most of the patients were rather costive; one complained of slight colic.

Circulation.—Under the influence of high doses of nitre, the pulse very soon came down, and the impulse of the heart became less sensible; this often occurred on the day after the commencement of the treatment. In one case only, the pulse remained quick to the ninth day. The rheumatic affections of the heart and pericardium quickly subsided, although no other remedies were employed.

Secretions.—In most cases, the cutaneous exhalation was remarkably increased; in some, the secretion of urine was much augmented; but this effect was by no means so frequent as the former one. The urine was generally alkaline, from the influence of the potass.

Therapeutic effects.—If we compare the duration of the cases recorded by M. Aran, with those mentioned by other practitioners, we must admit the efficacy of nitre as a remedial agent. According to M. Chomel, the average duration of acute articular rheumatism is from twenty-three to fifty days; Dance, who tried the tartar emetic treatment, says from forty to sixty; Dr. Hope, on the contrary, states it at from eight to ten days; M. Bouillaud, at from one to two weeks. Now the nitre treatment produces results just as favourable as those of M. Bouillaud, and is free from all the objections to which bleeding *coup sur coup* is liable.

Doses.—Although a large quantity of nitre may be given at once, it will be better, as a general rule, to commence with two drachms and a half in a quart of fluid, and gradually increase the dose to four or five. The medicine may be given in any fluid vehicle which the patient likes; perhaps one of the best is lemonade; the salt should be dissolved at the moment of its administration. Should the remedy cause much disturbance of the digestive organs, it must of course be suspended; but this does not often happen.—*Journal des Con. Med. Chir.*, No. 10.

In connexion with the subject of rheumatism, we extract the following remarks of M. Chomel, from a late number of the *Gaz. des Hôpitaux*.

Thirty-six cases of acute articular rheumatism were treated in the course of the year. Seventeen of the patients were attacked for the first time; the rest had suffered under one or more attacks; fifteen were received in summer; sixteen during winter. The causes were investigated with much care; seven patients attributed the attack positively to cold; in fifteen cases, no cause could be discovered; the rest gave equivocal answers. The pulse ranged from 71 to 131. Three patients had

one joint only attacked; two had two joints; the others were attacked in a greater number of joints. The mean duration of the disease in winter was sixteen days, in summer twenty-four days, giving an average of twenty days.

Heart Affections.—Of the thirty-one patients, only one had complained of any affection of the heart before his admission into hospital; and one was attacked after admission. During the four preceding years, eighty-six patients labouring under acute articular rheumatism were admitted into the clinical wards; and of these six had some organic affection of the heart previous to their first attack of rheumatism, and four only had suffered under affections of the heart posteriorly to their first attack. Hence the proportion of rheumatic patients attacked by disease of the heart, is by no means so great as M. Bouillaud and others assert. Even the *bruit de souffle* could be heard in seven only of the thirty-one cases, and in twenty-nine of the eighty-six. But in order to ascertain the value of this *bruit* as a sign of heart disease, M. Chomel examined several patients afflicted with other organic disease, and obtained the following results. It was distinctly heard,

1. In five cases of pneumonia; three perfectly recovered; in a fourth patient, who died, there was slight thickening of the sigmoid valves; in a fifth, in whom the *bruit* was extremely strong, no trace of disease of the heart could be discovered.

2. In three patients affected with small-pox, there was also this *bruit*, which disappeared with the disease.

3. In a case of typhus which terminated fatally, and in which no lesion of the heart existed.

4. In two cases of bronchitis, and in every case of acute inflammation of the womb received into the hospital.

Hence the *bruit de souffle* is not peculiar to rheumatism, but occurs in various other diseases, although less frequently.

POOR-LAW MEDICAL RELIEF IN LIVERPOOL.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—From your zeal in upholding the honour and interests of the profession, I have been induced to lay the subjoined statement before you, with a hope that by your bringing the subject before the profession generally, the recurrence of similar proceedings may be effectually prevented.

The new Poor-law has just come into operation in Liverpool. It was contemplated by the commissioner, and recommended by him to the board of guardians, to appoint duly qualified medical practitioners at stated salaries, to superintend the sick paupers; these intentions of the commissioner have for the present been frustrated; it will naturally be asked, by whom? Why! by a body of the very men who, had they acted consistently, would rather have assisted in carrying out such provisions of the new law as provided for the remuneration of professional men. The history is this:—The committees of the dispensaries who have been accustomed to receive in aid of their *charity* an annual contribution of 600

guineas from the select vestry, were naturally anxious for the continuation of the subscription, fearing that the number of applicants for *dispensary relief*!—already considerably exceeding 50,000 annually!! might be diminished by the withdrawal of the customary allowance. In this emergency they applied to their medical board, (i.e. the *honorary* officers,) for their opinion; the medical board summoned the stipendiary surgeons, nine in number, that they might go through the farce of *giving* their opinions, which, as the sequel proved, were never intended to be *taken*, for in spite of their remonstrances, and a distinct assertion that they could not conscientiously undertake to add to duties already sufficiently laborious, they were, considerably told that they could *try*, and if they did not like to go on, they could give it up; but what was meant by the insinuation of giving it up, was not, I believe, distinctly understood.

These gentlemen (i.e. the stipendiary or house surgeons) have, not unfrequently, to visit from fifty to sixty patients per diem, and if after such day's work they had to attend to midwifery in the night, their energies would soon be exhausted; hence, it will be seen, that their remonstrance was a very proper one; as a placebo, however, since this, the house surgeons are told, if they won't grumble, they shall have a *share of the profits* arising from attendance on the midwifery cases.

When the new Poor-law was introduced into Salford in 1839, a similar outrage upon professional propriety was contemplated by the guardians or dispensaries' committee, or both; but in this instance it was resisted by the medical men attached to the dispensaries. These gentlemen very properly entertained doubts as to the propriety of such proceedings, and were confirmed in their opinions by the written answers they received from the medical officers of the principal dispensaries in the provinces.

Amongst others, application was made to, and an answer returned by, the "Medical Board of the Liverpool North Dispensary." In this document, which, however, is too carefully concealed to be *at present* accessible, the aforesaid "Medical Board of the Liverpool North Dispensary" object to the *principle* of public charities contracting, &c. In the year 1841, the Medical Board of the North Dispensary concur with the Medical Board of the South Dispensary, in advising and sanctioning a course the very opposite!

My principal object in bringing this matter before the medical public is, that the medical board of the Liverpool Dispensaries may have an opportunity of explaining their apparently strange conduct, for to me it seems most strange, that after the legislature of the country have seen fit to provide remuneration (inadequate though it be) for the services of medical men, that a body of these same men should be the means of rendering nugatory such a very reasonable provision. What could be the motives by which these gentlemen were actuated in coming to the determination they have? It could not surely be from a pure, disinterested wish to increase the influence and extent of an institution which, but a few months ago, was admitted by some of the foremost of themselves, at a meeting of the Medical Society, to be already too promiscuously available, and a serious injury to the profession? It could not surely be, that these gentlemen would envy the slender remunera-

tion of the successful candidates for the appointments? Nor can it be supposed, that they would be jealous of others appearing in the same field of useful exertion with themselves. I would willingly believe that these gentlemen would not put themselves out of the way to injure the prospects of their less *eminent* or *prominent* brethren; nor can I suppose that they have such a desire to pander to the depraved appetite of the public for gratuitous services, as to act contrary to their conviction of what is due to their professional brethren. It must be some very powerful motive which would lead a body of educated men to recommend to *others* this theory to-day, and on the morrow to act diametrically opposite, when the circumstances applied to themselves.

I doubt if such a gratuitous insult has ever been offered to the medical profession.

I have been told by one or two of my *cautious* medical friends, that to endeavour to divert funds from a *charity*! into the pockets of medical men, will be a very *unpopular* act; others have said, older men than you have consented, why should you oppose? To these I answer, it is the younger branches of our profession who feel most the effects of the already overgrown dispensary system; and to those I answer, that although I am as willing as most men to be a "popular practitioner," yet if I am to consent tacitly, or otherwise, to sacrifice the interests of the profession to my individual advantage, I will be content to allow others to barter the rights of the profession for their own ephemeral popularity.

I have the honour to be,

Gentlemen,

Your obedient servant,

H. G. HARBORD.

122, Mill Street, Toxteth Park.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

May 25.

AN interesting case of subclavian aneurism, by Mr. Skey, was read by the secretary. The paper was very long, and occupied one hour in reading. Dr. Copland begged respectfully to direct the notice of the fellows of the society to the extreme length of the communication first read. He was not then aware who was the author of that paper, but as an independent member of the Royal Medical and Chirurgical Society, he had no hesitation in saying, that the details were too long, too tedious, too prolix, and too verbose, for the very limited time allotted for each meeting of the society. The paper in question might be condensed, so as to be read, without omitting the slightest facts necessary to elucidate the subject under consideration, in the fourth part of the time which it occupied. There were now fourteen papers before the committee, to be read this session; and yet there are but two meetings more before the society closes for the season. If each of these fourteen communications were to occupy the same space of time in reading as the present, he (Dr. Copland) wished to know how they were to be despatched. If the papers sent in were found to be too long, it was the business of the secretary to curtail or abbreviate them, so as to economise time. In conclusion, he begged to repeat that he did not know the name of the author of the present paper, and consequently could not mean anything personal or offensive in the remarks which he thought it his

duty to make, for the well being of the society, and for the benefit of its members.

Mr. PERRY, the secretary, said, he was sure the members would acquit him of having any particular love or affection for long papers. He had no authority to take such unwarrantable liberties with communications as Dr. Copland seemed to think. That power rested with the council. Besides, if he attempted to use the scissors so freely as Dr. C. recommended, he would bring down the wrath of the *genus irritabile* on his head.

Mr. SKEY, the author of the paper, candidly and honourably admitted that it was too long; and said that he was not aware until that evening that it would occupy so much time in reading. He perfectly coincided with the opinions uttered by Dr. Copland,

[Dr. Copland deserves the thanks of the society for the independent manner in which he always stands forward to correct any abuses that may have crept into the management of that body. Indeed, if authors studied their own interest, they would attend more to perspicuity and less to detail than they seem to do at present. The veteran practitioners, who attend the Royal Medical and Chirurgical Society, do not go there to be lectured. They go with the expectation of obtaining some useful practical information in as condensed a form as possible, and nothing is more painful than to see them disappearing, one by one, from the meeting during the perusal of some tedious and awfully long communication. Long-winded speeches are as bad as long-winded papers, and speakers as well as authors would do well to bear that fact in mind. It will prevent them from wearying the attention and exhausting the patience of their audience. —EDS.]

OBITUARY.

DR. HOPE.

WE were incorrect, in stating in the last number of this journal, that Dr. Hope died of a disease of the heart. The cause of Dr. Hope's death was pulmonary consumption, and the lamented occurrence was, we fear, in great measure owing to the very laborious duties which he, for nearly five years, performed as assistant physician to St. George's Hospital. Indeed, we understand that the medical gentlemen who attended Dr. Hope were of opinion that his valuable life might have been prolonged, had he not undermined his constitution by his labours in the cause of science and humanity.

MADAME BOIVIN died at Versailles, of an attack of apoplexy, on Sunday, the 15th of May. There are few who have cultivated more successfully than Madame Boivin the art of midwifery, either as a writer or a practitioner. She was a doctor in medicine, and for many years superintendent of the *Maternité* at Paris. The declining years of Madame Boivin's life were embittered by several misfortunes. She lost a large sum of money by the bankruptcy of some person to whom it was confided; and about the same time had an apoplectic attack which terminated in permanent paralysis. Thus enfeebled in body, and destitute of the means of support, Madame Boivin was received by some relations at Versailles, and obtained a very mo-

derate pension from the governors of the hospitals and the French minister. But the sudden change from affluence and distinction to a state of dependence had a deep effect on her health and spirits, and she gradually sank under it. Madame Boivin was a member of most of the learned societies in Europe, had obtained several decorations, and although many of the German professors were in the habit of addressing her as *sir doctissimus*, she was a woman of the most simple and unoffending manners, and of the most exemplary conduct.—*Journal des Debats*.

DIED at Edinburgh, on Saturday, the 22d of May, Dr. James Hunter, æt. 29, surgeon to the Eye Dispensary of Edinburgh. Ardent and zealous in every department of professional study, Dr. Hunter devoted himself particularly to the Physiology and Pathology of the Eye. A wide career of usefulness and honour appeared to be opening before him, but his severely studious habits undermined his health, and he died after a short illness of inflammation of the spinal cord. He was the author of a treatise "On the Influence of Artificial Light in producing Impaired Vision," in which the whole subject of the effects of artificial light on the eye is treated in a very able and novel manner.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Wednesday, May 12, 1841.—George Dickson, Francis George O'Kearney, Edward Stock, Frederick Hodgkinson, James Rogers, Hugh M'Clelland Graham, James Bell Metcalfe, Alexander Duncan, Edward Lawrence, Ireland Gaine.

Friday, May 14.—John Miller, Nathaniel Henry Clifton, Samuel Coates, Thomas Lancaster Beale, William Briggs, Josiah Herlis, Taylor Hannah Murison, William Knight, Erskine Allan, John Christie, Thomas Jackson Graham.

Monday, May 17.—John Cartwright, William V. W. Langley, John Woodward, William E. Baddeley, William Heygate, Michael Doyle, Philip T. Scott, James Henry, Rowland Rowland, Edwin Fennell, Moses Drake, C. L. Bradley.

Friday, May 21.—David Mahony, Daniel Wilson, Robert Horlock, Samuel Newham, William Stoker, Thomas Hodson, Samuel Phillips, Henry Brooking Square, Edward Heath, Robert Boyle Travers, Henry Hodgson Ogle Hay.

Monday, May 24.—James Cooper Pigg, George Rodwell, Thomas Wetherall Sproule, John Fawcett Dawson, Henry Manning, George Buttler, John Jobson, John Scott, Charles Meeres.

TO CORRESPONDENTS.

T. A. S. S.—The Index to Vol. I. will be published with that of Vol. II. The number of extralicensates who pass the College of Physicians is so small, that it would scarcely be worth while to publish their names.

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COURSE
OF
LECTURES ON PHYSIOLOGY AND
SURGERY,
DELIVERED AT ST. GEORGE'S HOSPITAL,
BY JOHN HUNTER, F.R.S.
(From the Manuscript of Mr. Henry Rumsey.)

LECTURE V.

General Principles of Diseases.

GENTLEMEN,—Now that I have treated of some of the properties of animal health, I shall treat of some of its imperfections, to understand which, it is first necessary to be acquainted with the perfect state, as also the operation of health in restoring the body, or its parts when diseased. Describing the parts in a healthy state, belongs to the anatomist; their action in such a state, to the physiologist; but the diseased state and the operations of restoring parts to health, to the physician and surgeon.

It is hardly to be supposed that disease is ever natural to an animal, it can only be the consequence of some unnatural impression that interferes with the impressions of the body, which impressions may take place at the very first arrangement, or original formation of an animal, so as to stamp a permanent and a natural action, or may take place in the first life, viz. in utero, but much more frequently after birth, when exposed to a thousand varieties, all which are impressions, and are contrary to the natural actions of the animal; as it were, a forcing to take on actions, which are either to remove those impressions, or destroy itself.

It is most probable that diseased actions are established on nearly the same principles that the actions of health are; they are at least similar in a great many of their principles; they destroy the dispositions of parts, they produce growth in it, they produce that power of removing natural parts, they are ruled by habit, they are affected by every external influence. An animal is so constructed as only to continue some diseases so long as the immediate cause lasts, as in scrofula, when it arises from climate; so constructed as to continue diseases from habit, as a gleet; as to go on with a disease, although the first cause is gone, but this only for a time, as in gonorrhœa; as to go on with a disease for ever, although the first cause is gone, as in lues, cancer, &c.

Diseases are either common to all parts alike, or peculiar. They are common to all parts alike, as inflammations of all kinds, as also tumefaction, scirrhusities, dropsies, &c. The particular are those that are a fault in the peculiar actions of a part, as involuntary action of voluntary muscles, or unnatural action of voluntary muscles, or too much or too little secretion from any of the glands;

in short, wrong actions of any part in its peculiar mode of action, from a disposition of that part.

General Observations on Susceptibility, and Dispositions constituting Constitutions, and Actions forming Symptoms.

This physiology of disease is more extensive, more obscure, depends less on general laws of nature, being often a perversion of them, therefore more irregular than any part of science, and of course less understood.

The most simple idea I can form of an animal capable of disease is, that every animal is endued with a power of action, and a susceptibility of impression,—(susceptibility has too often disposition substituted for it; as man is said to be well disposed, or parts to be well disposed, when they are only very susceptible; disposition is a degree farther in an animal than susceptibility.)—which impression forms a disposition, which disposition may produce action, which action becomes the immediate sign of the disease, all of which will be according to the impression and nature of the part impressed. That every action, whether natural, preternatural, or diseased, arises from this power of susceptibility of impression, I think we must allow, which power of susceptibility may exist without either disposition or action, if neither an impression nor stimulus is made; for the disposition is only formed in consequence of some impression, and the action is only the consequence of the disposition being formed so strong, as to incline a part for action, rather than resolution. Therefore action is the ultimate consequence of impression being made on a part endued with a susceptibility of impression and the power of action, which impression gives them disposition to act. For, from what was said above, parts having susceptibility do not produce disposition; the disposition must arise from some impression, which will produce the action, and which must always be sufficient to overcome the natural and habitual actions of the parts or whole, like a power overcoming the vis inertiae of matter. So that naturally there must be a susceptibility to receive impressions, which impressions shall produce disposition, and action of course takes place if there is power to act.

But susceptibilities are in some so strong, as almost to approach a propensity to act, which is probably as strong as the disposition, or often probably stronger.

The actions of the body, and the cause of these actions with their effects, are exactly similar to those of the mind; and as we are sensible of the actions of the mind themselves, abstracted from their cause or effect, we reason about them as much as we can reason about their causes and effect. This is not the case with the actions of the body, for in them we are only acquainted with the causes and effects, and not the action itself; therefore our minds are only reasoning about them from analogy.

The susceptibility for action of the mind is not known to the mind itself, but by the consequence of such susceptibility. Some minds are much more susceptible of certain actions than others; thus some men are more susceptible of anger, others of love, &c., but this does not imply that one mind is always in anger, and another always in love. With this susceptibility of mind, a stimulus must be applied to produce the disposition to action. A stimulus of one kind will produce anger, of another kind, love; but neither anger nor love is an action of the mind, it is a disposition only; the action of the mind employs other parts of the body to complete the whole, as when the actions of the mind are employing other parts to produce the ultimate effect, that action is not simply the action of anger, for anger could exist without the action of employing other parts, and indeed longer, for it is an action tending to destroy the action of anger, viz. the effect being produced, the cause ceases.

Every animal has a variety of susceptibilities, which admit of a variety of impressions, each impression producing a disposition peculiar to itself. Also, every animal has some of those tendencies to impression stronger than it has to others, out of all which a vast variety of diseases is produced. Each tendency to a peculiar mode of action gives the character of the animal respecting disease. The sting of a bee, for instance, affecting some people much more than other, demonstrates that there is susceptibility in some for such actions more than in others. In many, the susceptibility will be so strong, as only to require a stop being put to the common or natural actions, then the disposition takes place, and the disease will take possession of the part or whole.

An instance of this we have in scrofula, for it often happens that common accidents, as strains, bruises, fevers of all kinds, produce this disease, even in situations the most powerful in preventing it, as in the West Indies. Even poisonous dispositions are produced in this way; a blow on the breast or testicle shall produce a poisonous mode of action, i. e. cancer.

From this account, no animal is formed with disposition of action of disease; the natural actions are for the good of the animal, but they can be perverted, they can be made to destroy the whole. These circumstances are similar to the mind; some minds are more susceptible of some impressions than they are of others, which produces a disposition to act, and which will be according to the impression; but this disposition does not arise without the impression. The susceptibility of constitution may be increased (but never originally formed) by art, so as almost to be similar to a new formation, viz. where the original or constitutional susceptibility was weak, it may be increased, and kept so much on the brink of forming the disposition, that it shall only require the least increase, or some other immediate cause, to produce the effect, or form the disposition. A man not naturally fearful may be worked upon so, that the least thing may alarm him. Susceptibility may be so much increased, as almost to deserve the name of acquired; constitutions long habituated to particular climates will form a scrofulous habit, and an aguish habit, and a certain way of life will produce a rheumatic or gouty habit.

On the other hand, people naturally susceptible,

may be made by degrees less so considerably, by being generally accustomed to the immediate cause, when begun within the necessary impression.

There is no such thing, strictly speaking, as predisposing cause; what is commonly understood by predisposing cause, is an increased susceptibility to form disposition or action.

When I say I am predisposed for such and such actions, it is only that I am very susceptible of such impressions, which impressions must form the disposition; or if it is intended to dispose a person for such and such actions, it is only rendering him more susceptible of such and such impressions. The susceptibility must always precede the disposition. A disposition is a determined thing, a thing formed; it is a kind of resolution.

Of Susceptibilities of Constitutions and Parts for different Actions.

Every constitution is more susceptible of some constitutional actions, both natural and diseased, than it is of other actions, either natural or diseased.

Every constitution is more susceptible of some constitutional actions, both natural and diseased, than other constitutions are.

Every constitution is more susceptible of some local actions, natural and diseased, than it is of others.

Every constitution is more susceptible of some local action, natural and diseased, than other constitutions are.

Every constitution is compounded of parts, whose natural actions are very different from one another. The natural actions of the liver are very different from those of the lungs. Therefore, we also find the diseased actions of one are often different from those of the others; although every part of the body may be subject to some one or more common diseased action; as both liver and lungs may have the same common action as common inflammation, as also both may have the same specific disease as scrofula.

Every constitution being composed of different parts, whose natural and diseased actions are different from one another, as above mentioned, these actions being according to the nature of each part, and each part in some constitutions being more susceptible of natural actions peculiar to itself, than what it is in other constitutions; as also in some constitutions it is more susceptible of its diseased actions, than the same parts in other constitutions, as the liver in some constitutions is more susceptible of secreting bile, which is its natural action, than the same viscus is in others, as also more susceptible of its peculiar diseases in some people, than the same viscus in others.

1. Constitutions may be said to be more or less susceptible of this or that universal action, the first of which may be marked the irritable, and the indolent.

2. Some constitutions are more susceptible of some diseases, than some constitutions are of other diseases.

3. Some constitutions are more susceptible of some diseases than other constitutions are. And those constitutions, not susceptible of this or that disease, may be at the same time more susceptible of some other disease than the first-mentioned constitutions are.

Example.—Some constitutions are more susceptible of inflammatory fevers than of any other fever; others are more susceptible of putrid fevers than of any other fevers: while either one or the other of these constitutions might have some other disease either violently or mildly, as small-pox, lues, &c.

Constitutions may be more susceptible of some one specific disease than the same constitution of other specific disease; e.g. some constitutions are more susceptible of the small-pox than measles, or *vice versa*. The same constitutions may be more susceptible of some specific diseases than other constitutions are; e.g. some constitutions are more susceptible of the infection of the small-pox than others are, and yet have the disease mild. All of which characterize the constitution at large.

Of Universal Susceptibility to Produce Local Diseases.

Constitutions may be said to be both constitutionally and locally susceptible of diseased action. The erysipelatous fever, which is constitutional, being attended by the erysipelatous inflammation, which is local, is a strong instance of this.

Constitutions are universally more or less susceptible, both universally and locally, of the same disease, as the small-pox fever, when violent, having more violent and universal local effects; when mild, having mild local effects. Constitutions may be said to be more or less universally susceptible of this or that local action, when one part should take on action without any visible immediate cause, or when many injuries, (both constitutional as fevers, or local as accidents,) should make parts so injured run into a much worse diseased state than the same would have done in others; even many parts taking on specific diseases with greater readiness whenever the immediate cause is produced, as scrofula, venereal gonorrhoea.

Constitutional susceptibilities for diseased actions may be divided into three, with the mixed.

1. Original constitutional, i.e. where there is a universal susceptibility for diseased action of one kind or another, but the whole must be in action, as inflammation, fever, putrid fever, small-pox, &c.; also sympathetic fevers of all kinds. They may be very susceptible of the whole of these, or only of one or more.

2. Original local, i.e. upon the whole, is so constructed to be universally susceptible of going into diseased action in any one part peculiar to that constitution, but the action will be always local, and independent of every other part, because the immediate cause is local and independent of every other part, as scrofula, gonorrhoea or chancre, in venereal disease. Hence, the venereal is worse in one than another; and yet local, the same with scrofula.

3. The act of the constitution, although not similar to the other two, is a susceptibility to fall into universal indisposition, as if there was something teasing the whole, but which can call on a part, and that relieves the whole, such as gout, rheumatism, and perhaps all those that may be called critical; most of those can be assisted by a universal facility to action, or retarded by the contrary, which will affect either the local action or constitutional one.

Strong susceptibilities of a constitution to take

on diseased disposition and action, whether of the whole, as such, or a local effect of a constitutional disease, which last I have called an act of the constitution, only require the immediate cause for the disposition and action peculiar to these susceptibilities of constitution that take place. These immediate causes may not be the same in two constitutions, although both have a strong susceptibility for the same action; for what will produce the action in one constitution, may not produce it in another; although two constitutions may have a susceptibility for any one disease, yet one shall require the immediate cause of action of one kind, while the other shall require one of another kind. Two men may be exposed to the cause of an ague, both equally susceptible, and one may have the ague, and the other may not. It is exactly similar to the mind; two men may be naturally or constitutionally equally susceptible of anger, but each must have his immediate cause; what will bring forth action in one, shall have but little effect on the other, and *e contrario*. It is the same of every effect of the mind.

Most susceptibilities are so much of a specific nature in themselves, that each susceptibility shall be brought into action in nineteen people out of twenty in one way, while only in the other one the disease shall be brought into action in another way, and probably in this it has been prevented by what produced it in the others. This accounts for the same diseased action in different people, arising from so many different causes, and also accounts why such disease, though having a specific mode of action, may be varied in the same person in different ways, more particularly in different people, and often even requires different modes of cure.

This theory may be illustrated by everything that takes on full specific action, whether full constitutional action as an ague, or a local one as in the gout. As an ague is a well-known and well-marked disease, this theory will of course be understood in this disease. Every constitution has more or less susceptibility to fall into an aguish habit, but there must be in all an immediate cause to produce the disease. The immediate cause may be such as will make nineteen people out of twenty fall into the aguish action. But many constitutions, though they have a susceptibility of falling into an aguish habit, when the immediate cause takes place, yet may have no disposition to take on the full action of that disease, by which means the constitution is teased by what is called a bad-formed ague. But if the immediate cause be some local disease in the body, as diseased liver, spleen, &c., then the cure must be the cure of the liver.

This reasoning may be taken in another point of view: supposing twenty people, having different susceptibilities, introduce something that shall endanger the constitution of the whole number, and each shall take on the disease that he was at that time most susceptible of, whether ague, gout, &c.

But often that which would become the immediate cause in those already susceptible of action, or already predisposed to by repetition or continuance, becomes the predisposing cause in others not susceptible. If two men, one so susceptible as only to want the immediate derangement, the other not at all susceptible of an ague, be sent into the Fens of Lincolnshire, the first shall have an ague immediately, because he only wanted the

immediate cause of it; the other, if he does not get the better of the climate by habit, shall become aguish in time, because the country will become both a predisposing and immediate or exciting cause.

We may change from diseased ague, and the whole of the foregoing reasoning will be perfectly applicable. But when it is the nature of the disease to take on local action, as in gout, there must not be a universal disposition for such disease, which is the original, but there must be also a local preference, or rather a local susceptibility superior to the rest; and when the immediate cause takes place, so as to form the disposition, that part takes on the whole action, which relieves the constitution of such disposition, excepting it should produce another constitutional effect, by a vital part taking it up, by which means it would affect the whole constitution similar to any of the affections of this vital part; where a diseased disposition is formed, but does not take on the regular type of the disease, or does not take on the full and complete action, as in the aguish disposition, not having gone through the regular stages of the ague, or gout, not having formed a regular fit. In those diseases that become local, as gout, some attention is to be paid to the seat of action, for if a vital part takes it up, it must be much worse than when there is only a constitutional affection.

The power of forming regularity in constitutional diseases, or the power of constitutional affection becoming local, is, I believe, but little known.

Susceptibility for dispositions and actions appears to me to be the same with what is commonly understood by temperament. Temperament is the state of the body for disposition or action which it is then in, whether it is only a state of susceptibility, disposition, or action. The action is always the test of that state; but although the action is always the best test, yet there are some circumstances attending animals, that either dispose them for, or are concomitant upon, such and such susceptibilities, and from these circumstances we can say beforehand, although only in a general way, what are the most predominant susceptibilities for certain actions in this or in that person. We see that even colour in animals makes a difference in its temperaments, or is concomitant on temperament, for animals with fair skin and hair are more susceptible of cold than the dark, as also of pain. This last circumstance is well known in the army, where we find that the power of bearing violence committed on the body, is in proportion to the darkness of those parts. Fair people are more irritable in their minds, more susceptible of anger, and probably of all other passions. Fair people are also more susceptible of some diseases than the dark, as scrofula. This may arise from their not being able to bear the vicissitudes of climates, for it is in the changeable climate, especially where there is cold, moisture, &c., that scrofula is most predominant. The irritable inflammation also is more common in the fair than swarthy. As the fair are less able to resist cold than the dark, it might be supposed that the dark are less able to resist heat, therefore more ready than the fair to run into diseases which warmth has a tendency to bring on. But, from the estimate made by Dr. Young in the Island of St. Vincent, it

would appear that there was some reason for supposing the contrary. So that it would appear that the dark-coloured are rather fitter for all kinds of climates.

Of Diseased Disposition.

Dispositions are natural, unnatural, and diseased. The natural belongs to the healthy animal, therefore not to our present purpose.

Dispositions may be unnatural, and, of course, the action arising from them, unnatural, and yet not diseased.*

Unnatural dispositions and actions we shall divide into three kinds, or they may arise from three causes, which are remote—

1. Is the disposition of restoration, in consequence of some injury done, which is also a consequence of every disease which is curable.
2. The disposition arising from necessity, as the thickening of parts from pressure, ulceration of every kind; this includes great variety; and,
3. Is the diseased disposition of all kinds, which also includes a vast variety.

From this division we must see that there are two preternatural dispositions that are not diseased; so little so, that the first may be reckoned a disposition of health; therefore there is but one preternatural disposition to action which can be called diseased, viz. the disposition of destruction, and which is to be cured by the first disposition.

Diseased dispositions may arise from some fault in the animal powers themselves, or some extraneous matter in the constitution or circulation, as in many poisons, or from many substances acting on or affecting the stomach, called poisons, and from some substances being applied externally to the body, which disagree with animal life in general, as too much cold, too much heat, &c.

Every diseased disposition most probably has its allotted time for action after the impression, or after the formation of the disposition. Specific diseases are remarkably so, so much as to be taken notice of by many, but which will differ according to the susceptibility; poisons the same; the small-pox is about six, seven, or eight days at the medium; the measles the same. The venereal disease has a medium, although it varies. But some specific diseases shall remain a considerable time before the action takes place, and this will be much longer in some than in others, viz. according to the nature of the diseased disposition and parts. In cancer it is often very tedious; I have seen instances where it was years, when all continuance of the cause was removed, before the glands in the arm-pit had taken on diseased action after contamination.

A girl, at St. George's Hospital, fourteen years of age, born in the West Indies, and left that part of the world when ten years age, about a twelvemonth ago had an eruption on the skin, in several parts of the body, especially in the face, arms, and hands. They arose like warts, or like large moles about the size of a half-crown piece, above the surface of the skin, irregular in their base, some standing single, others running into one another, of a browner colour than the common skin, which was clear; clearly of a firmer

* If a man injures his leg, the inflammation is not diseased, only the mode of restoration, yet it is unnatural action; the ulceration is the diseased action.

texture than the common skin, for when moved, that, as it were, moved in one piece.

Now this was a West Indian disease; therefore I say that the girl was contaminated in the West Indies, and impression was made there, which was the first cause, and the disposition was formed, but that disposition did not come into action for three years after. Though her removal to a colder climate could not prevent her complaint or its effects, yet it protracted them.

It may further be remarked in specific diseases, and in poisons, that if the specific disease or poison is such as is capable of contaminating different parts, whose power or readiness to act is different, the same disease will appear at different times, in different places, in the same person, though perhaps every part is contaminated at the same time. Thus we have the venereal disease appearing at different times in the same person, and that difference arising from the natural susceptibility to act, some parts being more than others; the skin and tonsils being most susceptible of contamination, as also of action, and therefore affected soonest; the bones and tendons less so, therefore later in taking on the action. The disposition simply does not seem to affect either the constitution or the part, for either shall go on well with all their natural functions and power of restoration when injured, or diseases of every other kind, although at the same time in the disposition of some other disease.

Dispositions of one kind may be restored, or probably destroyed for a time, by a more powerful impression, or such as the constitution is more susceptible of, which shall supersede the first disposition, and go on with its action, and when its action is completed, the first disposition shall again take place, as will be illustrated when we come to all actions simply.

Action.

I have explained that a disease is a disposition for wrong action, and that the action is the immediate effect of the disposition; and that either the actions themselves, or the effects of these actions, produce the symptoms, which are generally called the disease, such as sensations which are commonly pain with all its kinds, sickness, alteration visible or invisible in the structure of the part or parts that act, sympathy.

An animal, or a part is disposed to act, and with that disposition the power generally takes on action.

The actions of an animal body are the natural, which have been already described; restorative, when injured either by accident or disease; and the diseased, each arising from the same class of dispositions; and therefore divisible into the same; the actions of health, arising from a disposition to act properly, that is, according to the combined laws of the machine, which may be either universal or only partial; for a man may be wholly in health, or only so in part; the restorative, for the falling back into the above natural actions, and which will be according to the nature of the injury done, and the parts combined. The diseased actions are many, but may be ranked under the following heads.

1. Improper actions of natural parts, as spasms of muscles; irregularity in the times of action in a compound part; the nerves have the credit for being the remote cause of all these.

2. Unnatural or improper action of the vessels, and these may be either attended with an increased or diminished action. The ultimate and visible effect in disease is action: and which is not the disease, for that action is only an effect, a sign, or symptom of the disease. But the disposition being only discovered by its effects, we are apt to go no farther in our inquiry, the cause being to many an object of curiosity. However, the effect must be attended to, for it is the effect which leads us to the cause.

It would often appear that the internal feel of health is the forerunner of disease. People just before a disease shall be in better spirits, feel strong, so as to take notice of it themselves.

A gentleman had better health than common before a spitting of blood came on.

A boy had more spirits than usual the night he was attacked with his cold fit of fever.

Perhaps the cause of disease gives the first feel of health or vigour; the animal powers are called up on the first alarm of disease; and when they sink, which is the second stage, they produce cold or shivering, which is generally supposed to be the first symptom, though probably the second.

A peculiar smell in the nose is often the first symptom.

Some diseases come on extremely rapidly, producing at first very violent symptoms, called acute; others come on slowly, and do not produce any sensible first symptom.

I divided diseases into two:—1. Improper actions of natural parts; 2. Unnatural or improper actions of blood-vessels. The first produce a great variety of complaints, and are reducible to parts acting independent of their natural causes or stimuli. Disease may either be too great action of this power, as in fevers and inflammation; and too small an action, as in atrophy, syncope, wasting of limbs; or, in an improper action, as the formation of steatomas, cancers, wens, &c. The too great action may be of the whole body, as in many fevers, or in parts only, as in local inflammations.

In many diseases it is necessary to produce the consciousness of weakness, to produce the action of strength. It is often necessary to produce sickness, to get the action of vomiting; to produce cold to get warmth. The too small action may be of the whole body, as in atrophies, syncope, or in parts, as in wasting of limbs.

ON THE PHYSICAL ALTERATIONS OF THE BLOOD AND ANIMAL FLUIDS IN DISEASE.*

By M. ANDRAL.

(Continued from p. 166.)

Normal composition of the blood—Fibrin—Blood globules—Albumen—Method of analysing the blood—Diseased conditions of the blood—Maladies in which the quantity of fibrin is increased.

THERE are three modes in which we can study the normal or healthy condition of the blood:—1st. With the naked eye, which enables us to de-

* Substance of a series of lectures on this interesting subject delivered at the Faculty of Medicine, Paris.—*Gaz. Med.*

fect several physical properties of great importance. 2d. With the microscope. 3d. By chemical analysis. It is by no means so difficult as people generally suppose, to obtain correct ideas of the composition of the blood, and of the properties, &c. of its different elements. The most simple idea that we can form of blood, while circulating through the vessels, is to regard it as an aqueous fluid conveying certain inorganic substances, and an organic substance, which puts on three distinct forms in blood removed from the body. We first have an animal substance, which has the property of coagulation, or, in other words, of separating itself from the aqueous vehicle; this is called fibrin. This coagulation always takes place in blood when abstracted from the body; in some cases it occurs in the vessels, during life, under the influence of certain morbid causes.

The second animal substance remains always dissolved both in the blood which circulates, and that removed from the body: we call this albumen. The third substance is peculiar to the blood; it is not in a state of solution, but merely suspended in the fluid; it presents itself under the form of small, lenticular corpuscles, which are denominated globules; the diameter of each globule is 1-125th of a millimetre.*

The blood globules are readily distinguished from the fibrin and albumen by their form and colour; they are composed of two distinct substances: one, called *hæmotosine*, gives to the blood its red colour; the nature of the other substance is not, as yet, clearly determined; some regard it as albumen, others as fibrin.

The inorganic constituents of the blood are the various salts which are dissolved in the aqueous menstruum; these constitute the solid materials of the serum. If we remove any quantity of blood from a vein, and leave it at rest in a vessel, it soon separates into two parts, which are quite distinct, both as to their physical and chemical properties.

The first is the clot, or *crûor sanguinis*; the clot is composed, 1st, of fibrin, or the coagulating portion of the blood; 2d, of the blood globules; 3d, of a large quantity of serum entangled in the meshes of the fibrin, which thus retains it, as a sponge would. The second portion of the blood is composed entirely of serum, holding in solution certain salts and the albumen. Instead of allowing the blood to coagulate of its own accord, we may beat it up with a small rod, as soon as it has been extracted from the vein; a quantity of solid matter or fibrin is soon deposited round the rod; the fibrin is thus obtained quite pure, and is separated from the colouring matter, the salts, and albumen, by being frequently washed with water. After the removal of the fibrin there remains a reddish-coloured fluid, composed of the serum, holding the blood globules and the albumen in solution. The spontaneous separation of the globules and their presence in the serum show that they are completely independent of the fibrin; they retain, still, all their properties.

When we examine the blood under the microscope, we perceive nothing except a quantity of serum containing blood-globules; the albumen and fibrin are in a state of solution, and cannot be seen. It will presently be shown that we can derive some useful knowledge concerning the real

and apparent size of the clot from these circumstances.

We have now to examine, more minutely, the intimate composition of the blood. In a physiological point of view, the three organic principles of the blood present several striking differences. Some authors uphold that fibrin is a mere modification of albumen, and this opinion is based on the great difficulty of distinguishing between dissolved fibrin and albumen. But the medical man need not stop to consider these nice distinctions; for, although it might be difficult to determine the distinctive chemical characters of the two substances, the physiologist perceives well-marked points of difference between them. Fibrin has a constant tendency to coagulate spontaneously, while albumen, on the contrary, always remains in a state of solution; the two substances will ever be characterized by this essential property. As to the blood-globules, all those who have paid much attention to the subject, acknowledge they are totally independent of the two primary principles of blood just mentioned; but much has been said about their texture and minute composition. Some describe them as being composed of a nucleus of solid albumen and fibrin, enclosed in an envelope; while others describe them as formed by an envelope of fibrin enclosing albumen and hæmotosine. While the state of the science is so uncertain, the medical practitioner, who seeks what is really useful in the analysis of the blood, must not be led away by any hypotheses about the nature of fibrin, &c.; he should rather endeavour to ascertain what modifications they may undergo during disease.

It has already been shown that the most simple way of obtaining the fibrin is to beat up fresh-drawn blood with a small rod; the fibrin is thus separated and purified by frequently agitating in water, until the fluid remains colourless. As this is the process which has been always followed by M. Andral in his experiments, it may be well to see—1st, if we can obtain the whole of the fibrine in this way; 2nd, if all the globules and colouring matter are thus removed. Some persons say that the *whole* of the fibrin contained in any given quantity of blood cannot be obtained by this method, because the blood, in a diseased state, will retain its fibrin more pertinaciously at one time than at another. In proof of this assertion, they cite the following experiment; some blood, drawn from the arm of a patient, is placed in two vessels; a small quantity of pus is mixed in one of the vessels with the blood, and on examination it is found that the coagulated fibrin from this mass is much smaller in quantity than that from the vessel which contained no pus. Hence, it is said, a certain quantity of fibrin must remain latent, since the same volumes of the same blood have furnished different quantities of it. But it is of little consequence to ascertain that some fibrin remains in solution; what we want to know is the quantity of spontaneously-coagulating material contained by the blood in a given disease; it is certain that this quantity is increased in some diseases (inflammation), and diminished in others. What does the experiment prove, except that certain substances, as pus, the alkalis, &c., prevent the coagulation; or, in other words, the separation of the spontaneously-coagulating material?

* The millimetre is 0.443 of a line.

Even if we admit that a certain principle may be developed during disease, which retards or accelerates coagulation, this has nothing to do with the question, because all we want to ascertain is, if there be really a greater quantity of coagulating material in one disease than in another. In the experiment we render the blood diseased *out of* the vessels, and we find a less quantity of fibrin; if the same alteration were to take place *in* the vessels, the same effect would probably ensue, and we would discover it by the process of beating up the blood. Besides, when fibrin is deprived of its property of spontaneous coagulation, it is no longer distinguishable from albumen, and ceases to perform the same part in the functions of the circulation that it previously did.

It has also been affirmed that M. Andral's method* does not enable us to separate the globules, which are retained in the clot with the fibrin. This objection is refuted by two arguments. 1st, the organic matter which, in conjunction with hæmotosine, constitutes the globule, is not proved to be fibrin; and, 2d, the substance of the globules does not coagulate spontaneously. Besides, the fibrin cannot possibly contain any blood globules, for it is washed until the water remains perfectly colourless.

In order to determine the alterations that may take place in the quantity of fibrin and other elementary constituents of blood during disease, we must first ascertain their normal quantities. It has been said that the actual proportion of fibrin, for example, has not been determined, and that authors vary much in their estimates of the relative proportions of this substance. But, in the first place, it may be observed, that the authors alluded to neglect to mention the state of the persons from whom the blood was drawn; they were, probably, patients labouring under some disease, and hence the want of agreement, for the effect of disease is to produce the variations mentioned.

Fourcroy says that the quantity of fibrin varies from 1 to 4·3; but was the blood, which furnished this latter quantity, in a healthy state? He gives no information on this point. MM. Lecanu and Dumas, who have paid the greatest attention to this branch of chemistry, consider the average quantity of fibrin to be 3 parts in the 1000: M. Andral, also, adopts this latter number, and remarks that the quantity may vary from 2½ to 3½. In adopting the simple mode of analysis described by M. Andral, it is evident that we do little more than make what Bordeu called the *medical* analysis of the blood; but it is useful to the practitioner, because it is an *easy* one, and enables him to determine, without loss of time, the changes in quantity which take place in the fibrin, blood globules, and serum.

In fact, we gain little by introducing to the notice of practical men long and difficult chemical processes; what the medical practitioner really wants, is some easy method of determining the changes produced by disease in the principal elements of the blood; of knowing, for example, that in a case of pneumonia, the blood undergoes a peculiar modification which we do not find in other diseases, as small-pox or typhus fever.

For the quantitative analysis of the blood several processes have been pointed out by different che-

mists; the method followed by M. Andral is that of Lecanu, Prevost, Dumas, and most other chemists of the present day. It gives for six ounces of blood the following proportions:—

	Drachms. French measure.
Fibrin	0·54
Blood globules	22·86
Solid parts of serum . .	14·40
Water	142·20

180 or 6 oz.

Or the quantities may be represented thus. In 1000 parts of blood we find

Fibrin	3 parts
Globules	127
Solid parts of serum . .	80
Water	790
	1000

It is necessary to remember each of the numbers, because they represent the normal or healthy condition of the blood, and the existence of disease has the effect of changing one or more of them, as we shall presently see. The pathological history of the blood consists, in fact, in the study of these variations. The time has long passed by since the examination of the clot and serum was considered sufficient; and the clinical experiments of M. Andral have convinced him that the conclusions which are often drawn from the relative proportions of clot and serum are erroneous; the mistakes chiefly arising from false ideas of the coagulation of the blood and the constitution of the clot.

It has been already remarked that blood separates into a solid mass called clot, and into a fluid termed serum; that the clot is composed of the spontaneously coagulating matter or fibrin comprising in its meshes some serum and globules. At first sight, it might appear from this that a large clot must contain a great quantity of globules and fibrin. This is not the case, for the clot will appear more or less voluminous according as the fibrin may have retained a greater or less quantity of serum; hence the medical man should not confine himself to a mere superficial examination of the clot, but call in the aid of analytical chemistry. He must distinguish between the real and apparent volumes of the clot; the consistence of the clot, also, will depend on the quantity of its fibrin, and on the quantity of serum retained in its meshes: when the clot is dense, and contains little serum, we may conclude that the proportion of fibrin in it is considerable.

The serum of the blood is composed, 1st, of water, (790 parts;) 2d, of organic matter, (albumen,) and of an animal matter, the nature of which is not yet clearly made out; 3d, of inorganic matter, as salts and a free alkali. We find in these elementary materials of the blood the principles common to all animal matter, as oxygen, hydrogen, carbon, and nitrogen; but in addition to these we find three other simple bodies, viz. phosphorus, sulphur, and iron. The two former are found in albumen and fibrin; iron enters into the composition of hæmotosine.

Pathological conditions of the blood.—The blood may undergo two different kinds of changes, each of which should be studied separately; it may be

* A detailed account of this method will be found in another part of the Journal.

altered in quantity or in quality. We know little about the changes in its quantity; it has never been proved, for example, that the mass of blood is increased in plethora. M. Andral commences this portion of his subject with alterations in the composition of the blood; of these there are two classes: 1st, The elementary composites of the blood may be altered either in their nature or relative proportions. 2d. The composition of the blood may be changed by the addition of certain substances extraneous to it, as pus, bile, urine, &c. The microscopic examination of the blood, as it reveals to us several facts of very great importance, should follow the study of quantitative alterations, after which we may pass to the consideration of the changes which take place in the physical qualities of the blood, and its modifications during disease.

But before we commence the study of the blood in a diseased condition, we should notice the influence exercised by two circumstances which are usually in operation during a state of disease, viz. abstinence from food and venesection. Formerly it was said that they diminished the solid elements of the blood, and increased the proportion of water; but this is too vague to be of any use. M. Andral has found, on analysis, that the change consists in a diminution in the quantity of globules, and that little alteration takes place in the quantity of fibrin before a considerable lapse of time. In estimating the influence of loss of blood, we must remember—1. That it may occur in acute diseases, where a moderate quantity of blood has been abstracted, and the patient forbidden to take nourishment. Here the quantity of fibrin is not sensibly diminished; but the globules are less numerous: 2. The hæmorrhage may be very violent and long continued, or the patient die of inanition; here the quantity of fibrin and of all the elements of the blood is notably diminished, and the volume of water is constantly increased. In one case of severe uterine hæmorrhage, the globules had descended to 21, (the normal quantity is 127;) the fibrin to 1.8; the solid parts of the serum to 61; while the proportion of water was 915. In many cases, however, the changes of proportion may affect only one elementary principle of the blood, or two may be involved; it is very rare to find the whole of them changed at the same time. The following are the limits of variation for each; in 1000 parts of blood the fibrin has varied from 0.9 to 10; the globules, from 21 to 185; the solid parts of the serum, from 57 to 104; and the water from 725 to 915.

Quantitative alterations of the elements of the blood in inflammation; increase of fibrin.—The quantity of fibrin may vary, in a healthy state of the blood, from $2\frac{1}{2}$ to $3\frac{1}{2}$; but in acute inflammatory affections it is invariably increased, and this change forms a most important feature in the history of these diseases. The circumstances necessary for the production of an increased quantity of fibrin, are the acute nature of the inflammation, and the presence of fever. It might, at first, appear that the increase of fibrin depended on the fever, because it is proportionate to the intensity of febrile action; but experience soon demonstrated that it was essentially connected with the inflammatory process, of which the fever was merely a sign. We therefore must have some acute local inflammation whenever the quantity of fibrin rises above 3; with

the exception of the local inflammation in small-pox and typhoid fever.

The augmentation of the quantity of fibrin is so certain a sign of inflammation, that if we find more than 5 parts of fibrin to 1000, in the course of any disease, we may positively affirm that some local inflammation exists. A patient was admitted into hospital with symptoms of congestion of the uterus; an increased quantity of fibrin was found in the blood drawn from a vein; the existence of inflammation was immediately announced, although, up to the period of death, its rational signs were extremely doubtful; on examining the body, an abscess was discovered between the uterus and rectum. In another case, equally doubtful, 7 parts of fibrin were found; the lungs were in a state of inflammation. A patient labouring under scarlatina was bled; $7\frac{1}{2}$ parts of fibrin were found in the blood; this increase only exists in cases of inflammation; the patient died, and the necropsy disclosed the existence of acute nephritis. We might quote a great number of similar examples, which demonstrate in the most clear manner that the diagnosis of inflammation may be founded on the increased quantity of fibrin in the blood. The average augmentation of fibrin in inflammation may be estimated at 7; the minimum at 5; the maximum at $10\frac{1}{2}$. In cases of pulmonary tubercle, the maximum quantity is 5; but even this is found only in the third stage of the disease, when it is complicated with pleurisy, inflammation of the pulmonary tissue, &c., so that the increase of fibrin may depend on the latter complications. It now remains for us to examine how far this change of the blood may be influenced by certain conditions.

Constitutional influences.—For example, what influence does the constitution exercise? According to generally received notions, we might suppose that the constitution of a strong athletic man must tend to increase the quantity of fibrin, in case he were attacked by inflammation. Such is not the fact; we do not find more fibrin than in persons of feeble constitution; the latter are as much subject to inflammation; nay more: weak, debilitated persons are more apt to suffer from inflammation than the robust, because the blood globules are diminished, and the quantity of fibrin is relatively, though not absolutely, increased. Hence, feebleness, diminution of the globules, and the consequent proportional increase of fibrin, give a predisposition or tendency to inflammation. Besides, practitioners are well aware of this fact, for they daily see the worst and most persevering examples of inflammation in subjects who have been worn down by previous diseases.

Concomitant affections.—Diseases which may arise at the same time as the inflammation, or co-exist with it, do not prevent the characteristic increase of fibrin; thus, in chlorotic females, it rises to six or seven under the influence of inflammation.

Seat of the inflammation.—The fibrin is always increased, whatever be the seat of the inflammatory affection, but the latter seems to exercise a certain degree of influence; the greatest increase was found in pneumonia and rheumatism. In 40 patients affected with rheumatism, the following were the proportions:—In one patient, 10 parts of fibrin; in two, 9 f.; in four, 8 f.; in eight, 7 f.; in nineteen, 6 f.; in five, 5 f.; in two, 4 f.

Pneumonia.—The maxima and minima were

nearly the same as in rheumatism. Fifty-two patients were examined. In two, the quantity was 10 f.; in nine, 9 f.; in thirteen, 8 f.; in eleven, 7 f.; in seven, 6 f.; in seven, 5 f.; in three, 4 f.

Pleurisy.—Here we must distinguish several cases. 1. The inflammation may be quite recent. 2. Recent, but with effusion. 3. Chronic. In the first two cases the quantity of fibrin is increased, but it is much less than in pneumonia, and does not exceed 6. In the third case it varies between 4 and 5, or may descend even to 3½. Peritonitis gives exactly the same results: in acute peritonitis the fibrin oscillates between 5 and 7; in chronic cases, with effusion, it comes down from 5 to below 4; hence, in inflammations of the serous membranes, we must distinguish those cases in which the disease is active, and those in which the inflammatory process seems to have passed away, leaving behind it nothing but its products. In acute amygdalitis and in erysipelas, the quantities are from 5 to 7; in slight cases, from 3½ to 5; in one case of phlegmonous erysipelas of the leg, the quantity of fibrin amounted to 7.

Nature of the disease.—This only influences the elevation of the number, representing the quantity of fibrin.

Duration.—The augmentation of fibrin is observed at the very outset of the disease. M. Andral noted 17 cases of pneumonia; two were at the second day, (fibrin, 4 and 6); two at the third day, (f. 5 and 7); nine at the fourth day, (f. 5½, 6, 7, 8); one case at the 5th day, (f. 7); one at the 8th, (f. 9); the same is observed in all other inflammatory diseases. But it may be asked, does the quantity of fibrin increase during the premonitory symptoms, before the actual development of inflammation? Does the latter arise *after* the blood has become overcharged with fibrin? It is impossible to answer these questions in the present state of our knowledge. In two cases blood was drawn from the arm, before the manifest existence of disease, and the quantity of fibrin was not found to be increased.

Progress of the disease.—As the disease progresses, the quantity of fibrin increases; when the inflammation begins to decline, it decreases; the correspondence is most remarkable. Thus in case of severe pneumonia we bleed, and find from 8 to 9 parts of fibrin in the blood; the disease becomes more severe; we bleed again and again, and find 10 parts of fibrin. The symptoms now decline, resolution has commenced, and at once the quantity falls to 5. Nay, what is still more striking, whenever the disease presents alternations of increase and decline, as it sometimes does, these alternations are marked by corresponding changes in the quantity of fibrin. An example of this was seen in a case of acute articular rheumatism; a first bleeding gave 6·2 of fibrin; the febrile symptoms now abated; the pain diminished, and the fibrin fell to 3·7; a relapse took place, and the fibrin rose, at once, to 6; when the rheumatism became quite chronic, the quantity of fibrin did not exceed the normal figure.

Convalescence.—During the convalescent stage, the quantity of fibrin sometimes remains a little high; but usually it returns to the healthy standard. It might be supposed that the increased quantity of food given during convalescence is the cause of the high figure; but this is not the case, because

it occurs even when the patient is kept on very low diet, and the quantity often falls, although the diet has been much improved.

Bleeding.—The general rule is, that the quantity of fibrin will rise above the normal standard, in spite of venesection, and that during a certain time; this does not prove that bleeding is useless, but simply that it cannot prevent, *instantly*, the tendency to the production of an increased quantity of fibrin.

Fibrin in phthisis.—The quantity is increased in the last stage only of pulmonary consumption, but the increase is never considerable; still the fact is a remarkable one, when we consider the deterioration which the blood must have undergone; it probably depends on the development of local inflammation around the tubercles.

Cancer.—In one case of cancer of the uterus, the fibrin amounted to 5; and it reached the same figure in a case of cancer of the stomach; in one of cancer of the ovary it amounted to 6; but more cases are required to settle this point, because it is well known that diseases of this kind are frequently accompanied with local inflammation.

Pregnancy.—One of the most remarkable facts pointed out by all practical physicians, is the tendency of puerperal females to be attacked by inflammation ending in suppuration. M. Andral has commenced a series of experiments on this interesting subject, of which the following are the first results. Twenty-eight women, all in good health, were bled at different periods of pregnancy. If we divide the whole period into two portions, one including the first six months, the other the last three, we find that the average quantity of fibrin during the first was 2·6; the maximum 2·7; the minimum 1·9; between the sixth and seventh months we have 4·2 of fibrin; from the seventh to the eighth, 3·1 of fibrin; after which it rises again to 4·2. Hence it would appear that during the first six months the quantity of fibrin is always below the normal standard; after this it is much increased, but from the seventh to the ninth month it varies. Hence, there is an augmentation of fibrin, particularly between the sixth and seventh month, and the eighth and ninth; and this may explain the frequency of, and disposition to, inflammation. These experiments, however, must be confirmed by more extensive investigations.

In the next paper will be noticed those diseases in which the quantity of fibrin is diminished, (hæmorrhages, congestions, fevers.)

EXPERIMENTS

FROM THE EARLY NOTE BOOKS OF THE LATE

SIR ASTLEY COOPER, BART.

EXTRACTED WITH PERMISSION OF B. B. COOPER, ESQ.

No. IV.

(THE following experiments, by Sir Astley Cooper, are exceedingly interesting, both on their own account, and as bearing on the experiments on the same subject by John Hunter, detailed in his lecture, which appeared in the 34th number of our journal. They were made, principally, during the year 1794, six years before he received his appointment of surgeon to Guy's Hospital.)

Experiments made to ascertain the effects of Heat and Cold when applied to the bodies of Animals.

Experiment 1. Feb. 2.—I immersed my arm, up to the elbow, in a quantity of snow, my pulse previously standing at 80. On feeling it, while still covered, I found it had risen to 86. The excessive pain I experienced obliged me to withdraw my arm, after continuing it immersed only a minute.

I was surprised at this result, as I expected it would have fallen, and determined to repeat the experiment, but in a rather different way.

Experiment 2. I procured ice, and dissolving it in water, brought it to a temperature of 33 deg. by my thermometer; and then, on immersing my arm, my pulse, which was previously at 87, rose immediately to 121 in the minute.

These experiments prove that the application of cold, when applied suddenly, quickens the pulse.

Experiment 3. Apprehensive, however, that there might be some peculiarity of constitution which produced in me so particular an effect, I requested Mr. T— and Mr. S—, the gentlemen I had employed to feel my pulse, to subject themselves to similar experiments.

Mr. T.'s natural pulse was 92; on immersing his arm in the water at 33 deg., the pulse on that side rose to 102. Here then was a difference of 10 in a minute in the quickness of the pulse.

Experiment 4. On Mr. S. immersing his arm in the water, when it was at 34 deg., his pulse, which was naturally 80, rose in one minute to 83, and became very hard and irregular. The pulse of the arm which was not in the water was found to have risen also to 83.

Experiment 5. I immersed my arm in the water when it was at 34 deg., my natural pulse at the time being 80 in the minute; and in one minute it beat 96 on each side.

Experiment 6. If the pulse be raised above what is natural to it, and then immersed in cold water, it seems to fall rather than rise.

Mr. S., by running frequently up and down stairs, had quickened his pulse to 95 in the minute. On immersing one arm in the water, the pulse fell to 88 on that side, while on the other side, after the same time, it had fallen only to 92. His natural pulse was 80.

Experiment 7. Glowing seems to be the effect of an increased fullness of the vessels, but decreased quickness of action.

When the pulse by immersion had been increased 20 beats, and the arm, removed from the water, was glowing, the pulsation was found to be only 5 beats more than natural, but the arm was much fuller than before.

Mr. S.'s arm, when it was glowing, had a pulse of only 76 in a minute, but in the water it was 83, and naturally it was 80. (See Experiment 4.)

Experiments on the effects of Heat and Cold upon Quadrupeds.

I put a kitten, six weeks old, into water, (its mouth only not being immersed,) which I kept at a temperature of 32½, by dissolving in it small pieces of ice. The animal died in sixteen minutes.

During the first five minutes it lay quietly in the water, but its nose, lips, and gums, which were previously pallid, became, soon after the immersion of the body, of a beautiful vermilion colour.

During the second five minutes it struggled violently.

After the tenth minute it lay quiet, breathing at first quickly, then laboriously, and lastly at long intervals, when it died.

Immediately after it had expired, a thermometer, introduced into the chest, stood at 52 degrees.

Upon inspecting the heart it was found to be quite still: the blood in its left side was of a florid red. When touched, the heart acted, but afterwards remained motionless unless similarly stimulated.

The peristaltic motion of the bowels still continued. The blood in the mesentery was very florid.

One hour and thirty-five minutes after its apparent death I poured warm water, its temperature being 90 to 100 deg., into the chest. The heart almost immediately began to act, and continued to do so for more than two hours, and therefore more than four hours after the chest had been laid open.

Observations on the above Experiment.—The beautiful vermilion colour of those parts of the head in which the blood could be seen, was owing to the great change which the blood undergoes when an animal is exposed to cold. The venous blood becomes highly phlogisticated, and a greater degree of decomposition of the air is produced, during the passage of the blood through the lungs.

It also shows that the action of the arteries and heart is greatly increased by the irritating effects of cold.

It lived only sixteen minutes, the cold having taken away the capacity for action; so soon as heat was applied, the actions were renewed.

The loss of action was not owing to an undue quantity or quality of blood, but to the loss of heat in the body, which was so great, that instead of the thermometer rising to 97 deg., it stood at 52 deg.

Heat, therefore, was taken from the body faster than it could be supplied by the animal powers, and as a standard heat is necessary to proper action, the loss of this was the cause of the animal's death.

Experiment 2. A puppy, one month old, was placed in water at 32½ deg. It struggled violently, its gums became of a florid red, and it died after thirty-five minutes.

After the last expiration its chest was opened, and the thermometer being introduced, stood at 60 deg.

The heart at first acted but little, but soon after it was exposed to the warm air it acted vigorously, and continued to do so for five hours. After it had ceased acting for half an hour, warm water was poured on it, which produced fresh action for ten minutes, after which time it could not be made to contract.

Observations. The dog was longer dying than the kitten. It shows the same phenomena, excepting that the heart acted from the stimulus of warm air, which it did not do in the kitten.

Experiment 3. I immersed a kitten, six weeks old, in water at 60 deg., which after a time was increased to 70 deg., by the heat of the animal. It struggled frequently and violently, and died after thirteen hours. When opened, the heart did not act. Its own exertions contributed much to its destruction.

Animals placed in cold situations die quickly from a loss of irritability or susceptibility, in warm situations, from the powers being exhausted by too violent action.

Experiment 4. I placed a kitten, two months old, in water at $32\frac{1}{2}$ deg.; it died in a quarter of an hour. Heat of the chest and abdomen 67 deg. Its heart ceased to act when it was opened, but by pouring on it some warm water, so as to make the heat of the chest about 100 deg., it began to act, and continued to do so for hours.

Experiment 5. A puppy, one month old, was placed in water at 110 deg.; it struggled long and violently. Its respiration as it became exhausted was extremely quick, and strong convulsions came on before it died, which happened at one hour after its immersion; on introducing a thermometer into the chest, it stood at 104 deg.

The heart had entirely ceased to act, and could not be excited by any means in my power. The peristaltic motion of the bowels continued some little time.

Observations.—This experiment strikingly shows the difference between the effects of cold and heat. Although the first effect of sudden immersion in cold is to quicken the pulse, this does not continue long; for the body becomes robbed of its heat, which is the support of its irritability, and action is gradually diminished; but it is capable of being restored on the return of heat. On the other hand, immersion in heat induces a constant excessive action of the heart and arteries until they become fatigued and at length exhausted, so as not to admit of revival. In the one case, therefore, an animal dies from the interruption to action simply; in the other case, from loss of power as well as action.

Experiment 6. Another puppy of the same litter was put into water at 60 deg., which it soon raised to 73 deg. It remained in that situation nine hours, at the end of which time it seemed nearly as strong as when first put in.

Observations.—This shows in a striking manner the effects of temperature. That in the case of the first puppy placed in cold water, (Experiment 2,) it should die in about half an hour; the second, in warm water, (Experiment 5,) in one hour; and of the third puppy placed in warm water, nearly the heat of the atmosphere, (Experiment 6,) that it should live for many hours. The difference in temperature between the water in the first and second case, and in the second and third case, was in each about 40 deg.

[The following experiments bear an earlier date than those already described.]

Experiments to ascertain the Effects of Heat on Animals.

Experiment 1. A young puppy was immersed in water at about 120 deg. of Fahrenheit's thermometer. For one minute and a half it struggled violently, and during the latter part of this time threw out the air from its lungs. It then remained still for a minute and a half, when its struggles were renewed, at which time it generally voided its excrement. These efforts were soon over. After remaining still for three minutes, it was put into another vessel containing water of the same temperature: in this it gasped twice or thrice.

Appearances when opened.—In ten minutes from the time of its immersion I opened it. A slight undulation was observable at the lower part of the right auricle of the heart, and there was some motion in the intestinal canal. The action of both ceased in about a minute, and could not be reproduced by irritation, as on touching or piercing it. Thus, then, the action of the heart was destroyed ten minutes after immersion.

Experiment 2.—*Dogs thrown into cold water.*—A puppy, the same age as the last, was immersed in water at about 56 deg. Fahrenheit. The voluntary motions continued violent for one minute and a half. It expired air from its lungs. At the end of another minute and a half, its struggles were renewed, and again passed off. For two or three minutes afterwards it continued to gasp. It was then thrown into another vessel containing water of the same temperature: it gasped at the end of each minute, and ten minutes after its first immersion was opened.

Appearances when opened.—The heart acted vigorously, and there was strong peristaltic motion in the intestines. The action of the heart continued to be strong for nineteen minutes after it was opened, when it undulated for four minutes, after which all action ceased.

At the end of twenty-nine minutes, then, the heart of this animal, immersed in cold water, acted as strongly as that of the first after ten minutes' immersion in warm water.

Experiment 3. (Sir Astley Cooper remarks that "the two following experiments are striking.") A kitten was put into cold water, and after about two minutes ceased to struggle; for some minutes afterwards it had convulsive motions. Twelve minutes after it was first immersed, its abdomen and thorax were opened.

Appearances when opened.—The heart was contracting, and the intestines moving, and the heart continued to do so for half an hour.

Experiment 4. A kitten was immersed in water heated to 100 deg. Fahrenheit. Its effects seemed rather more violent than those of the preceding. Its convulsions were sooner discontinued. Twelve minutes after its immersion it was opened.

Appearances when opened.—No action could be observed either in the heart or intestines; nor could be produced by stimuli or irritation.

From the foregoing experiments, then, it would appear that although heat to a certain extent is necessary for the support of action, yet, when carried a few degrees beyond that extent, that it exhausts and destroys. It produces an excessive action, which the animal is unable to support.

Heat a stimulus.—That it is a stimulus, few will doubt: the following experiments well illustrate this.

Birds.—Their hearts act strongly in warm, and weakly in cold water.

Experiment.—The chests of some young sparrows were opened, and whilst the heart was still acting, it was put into warm water, which at once, in all the instances tried, increased the action.

Snake.—Its actions most vigorous in warm water. A snake was opened after being immersed in rectified spirits of wine, in order to destroy it. It coiled itself up, became rigid, and was supposed to be dead. On being opened, it showed some voluntary power, and its heart was found beating strongly. It was put into a vessel of cold water,

and the action of the heart became languid and slow.

It was then thrown into water heated to about 80 deg. Fahrenheit. The action of the heart became quick and vigorous, and it began to move freely in the vessel, recovering its voluntary motions, although its body was opened.

It was replaced in the cold water; its voluntary power became lessened, and its heart did not act frequently and vigorously as before.

CASE OF ATTEMPTED SUICIDE.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—At the meeting of the Medical Section of the British Association held at Birmingham, Dr. Macartney read a paper "on the suppression of hæmorrhage from arteries," in which he commented on the error of the theory of the necessity of inflammation to the healing of wounds. I then mentioned that I had, for a long period, been in the habit of healing extensive wounds with little or no suppuration, and instanced a wound in the ankle-joint inflicted by an adze, which had just been healed in that manner.

As the following case appears interesting, and illustrates Dr. Macartney's reasoning on the subject, so fully treated in his work on Inflammation, I take the opportunity of offering it for insertion in your journal.

I at the same time forward an interesting case of injury to the cervical vertebræ, which has been entirely cured in a short time by the recumbent position with very slight extension, and shows the certainty with which such diseases, the result of accident as well as of chronic inflammation, may be relieved. I am, Gentlemen, yours respectfully,
Leeds, May, 1841. SAMUEL HARE.

Nov. 3, 1840.—Mr. J. H., aged 34 years, of a bilious temperament and spare figure, residing in a neighbouring county, was placed under my care on account of great depression of spirits, and being otherwise out of health.

On the 19th, about 7 A.M., the party with whom he lodged was alarmed by his falling on the floor in his lodging room, when it was discovered that he had made a desperate attempt at suicide. They sent to my house, and also to two surgeons residing near, Messrs. Close and Beardshaw; on their arrival they found the throat cut from ear to ear with a razor, the incision having divided the larynx between the os hyoides and thyroid cartilage and the pharynx also, either entirely or nearly so, as food passed plentifully through the wound; his countenance was pallid, there was no pulsation at the wrist, and very little at the heart, the hæmorrhage having been very great; not less than two pounds of blood were lost; it was estimated at considerably more. The wound, which was 7½ inches in length, was slightly drawn together by four sutures, and the edges kept in apposition by strips of adhesive plaster, previously covering the part well with small pieces of dry lint, which formed a compress, and, being supported by the plaster, kept the integuments in their proper place; the dressings were renewed three, but generally four times a day.

30.—The whole of the wound on each side

is quite healed, there being no discharge except from the centre near the trachea, from which part a free discharge of purulent matter took place on the 23rd, which continued from three to four days; it was subsequently altogether bronchial secretion, but not much in quantity, and that was absorbed by the frequent dressings so effectually, that the wound was kept clean and dry, the lint never being so wet as to disturb the plaster.

Jan. 1.—The healing has gone on very favourably, the discharge being very trifling, and only twice a discharge of a little food, and then owing to his being in a state of great irritability.

Feb. 1.—The extent of the sore does not now exceed from one-half to three-quarters of an inch; the edges have contracted and become a little inverted, which renders the final healing more tedious; his health has greatly improved, and the sore has a healthy appearance.

24.—Owing to the difficulty which has taken place in keeping him quiet, and his mind being in a state which renders it improper for him to be at large, he was this day removed to a private asylum in the neighbourhood of York, the whole of the wound being healed except a small fistulous opening, not larger than the end of a small tobacco-pipe.

May 25.—Have this day paid him a visit, and find the sore entirely healed, and his general health in an exceedingly improved state.

REMARKS.—The greatest pains were taken during the whole period to keep the patient's head and neck in a proper position by bending them forward, and supporting the head with pillows, so as to avoid irritating the wound. He was not allowed to be up, or to speak more than was absolutely necessary; at times he was rather unruly, and being unwilling to submit to confinement, would get out of bed, roll his head about, and even take off the dressings, which of course irritated the sore, and it was on these occasions that the food was forced through the opening. His diet was confined chiefly to sago, arrow-root, and broths, with bread-crumbs; sweets and solid food were carefully avoided.

INJURY OF THE CERVICAL VERTEBRÆ.

ON the 28th of August 1840, William Atkins, aged 23 years, of a sanguineous temperament and light figure, was riding a horse-race, when, the horse falling, he was precipitated to the ground with great violence; he was taken home, was bled, and had purgative and other medicines administered.

I was first consulted respecting him by his employer, on the 9th October, when the young man gave the following account of his case:—He scarcely recollects how he fell, but his head was forcibly bent forward, and to the right side; the pain in his head and left side of his neck distressed him so much, that he could not move at all without great suffering.

On carefully examining the part, he evinced much tenderness on pressure being made on the vertebræ; several of them, particularly the fourth and fifth, were projected, producing a curvature to the left side, so that his head was considerably inclined to the right; he could not move his head upon the atlas in the least, being obliged to turn the whole of his body if he wished to look either to the right or the left; the least inclination forward gave him

excruciating pain; indeed, for some weeks past it has increased so much, that he was obliged to use the greatest care in walking, as any sudden shake would aggravate the pain exceedingly. He had numbness in the right arm, and still more in the left, which he could scarcely extend along his side: he had also, from the first, great difficulty in getting into the recumbent position and raising himself in bed; when there, he could lie only on his back, and had to be carefully supported with pillows, and suffered most distressing pain, whether in bed or up, on endeavouring to keep his head and neck in a straight direction; his speech was much affected, not being able to articulate his words; and in mastication, but especially in swallowing, he experienced great difficulty and pain in the affected vertebræ; he has also a tingling sensation in the front of the neck, as if the parts were asleep: his tongue is covered with a moist white fur, and his pulse is rather frequent, 96.

The patient was first laid upon the inclined plane on the 23rd of October, having gentle extension made upon the vertebræ; a headstrap being placed under the chin, and the cord over the pulley, with the necessary extension at the feet, as particularly explained in my work on Curvatures of the Spine, page 111: he was also ordered a cooling antiphlogistic diet, and a course of alterative, aperient medicine.

He soon felt the good effects of the treatment, the pain at the end of the second week being much relieved, and was felt only when he had occasion to raise himself up; at the end of the fourth week he could keep his head quite erect, and articulate his words quite distinctly, the other symptoms improving in an equal degree.

On the 16th December, having been quite free from pain, and all displacement of the vertebræ, &c. having disappeared for ten days or a fortnight, he gave up the use of the apparatus.

April 10. He is now in better health than he has been for some years, and has not had any return of the symptoms under which he formerly laboured.

PROVINCIAL

MEDICAL & SURGICAL JOURNAL.

SATURDAY, JUNE 5, 1841.

To compare and analyse the suggestions thrown out by various writers as to the changes required to place our medical institutions and polity on a renewed basis, would afford much curious matter for speculation, and possibly also some profit to the inquirer. Much available information has been collected, and several plans, looking well in theory at least, been proposed for the future constitution of the medical body; but we fear that in the desire for some new thing, the advantages and value of what is established have not unfrequently

been overlooked, while an ideal standard of perfection has been too commonly substituted for that which is practicable, and capable of being attained to.

The simple costume of the ancient Greek or Roman may be more dignified or better calculated to display the symmetry and graces of the human figure, than the grotesque clothing and complicated habiliments in which the highly civilized man of modern times invests his person. It certainly accords better with the chasteness of a purely and correct ideal taste; for who could tolerate a statue of Neptune in a cocked hat and epaulettes, or a painting of Venus arising from the froth of the sea, laced up in a pair of modern corsets? yet it would scarcely be thought fitting to the habits and customs of the present age, were peers to mingle with the crowds of our thronged and busy thoroughfares, attired in the toga of a Roman senator; were a county member to address the Speaker of the Commons House of Parliament encased in the armour, and invested with the golden spurs of a knight of the shire; or a lady of the bedchamber to attend her Majesty on a court day, in the no-attire of a nymph of the golden age. Much of the propriety of man rests with his outward covering. Who, as the clever author of *Sartor Resartus* observes, can imagine "a naked Duke of Windlestraw addressing a naked House of Lords?" The form and fashion require attention, as well as the substance, and the aptitude and congruity of these with the circumstances of time and place must be preserved, or the effect of the whole will be inharmonious and discordant, though possibly strictly conformable to some standard of ideal perfection.

Something like this may be discovered in the attempt at remodelling the constitution of the medical profession. The whole frame-work of modern society is bound together by certain recognized forms, and the clerical, the legal, and the medical professions, are each a part of the frame-work. To remodel any one of these after a form which, however excellent in itself, abstractedly considered, is entirely irrespective of what already exists, and does not harmonize with other parts of the social system, would be to the full as discordant and incongruous as the familiar illustrations to which we have referred.

The removal of abuses which time has generated, and the adoption of practical improvements in accordance with the spirit of the times, should be the aim of the medical reformer, rather than the introduction of extreme or uncalled-for change. It is wiser to repair and alter a dwelling, the defects of which are known, and its conveniences appreciated, than to bring it tumbling about the

ears of the inhabitants by meddling with its foundations, and attempting to reconstruct it after a variety of plans, concerning which no two of the would-be architects are agreed. Medical reform, in the minds of certain parties, would seem to narrow itself into an opposition to, and extinction of, all existing institutions. Now, the real object to be sought, the practical question to be determined, is the best method of amalgamating existing interests, and making those institutions, which the progress of civilization and the requirements of the public have established, subservient to the efficiency of the whole body.

For our own parts, we confess that we regard many of the points raised as purely speculative, and involving considerations not essential to the settlement of the question on grounds advantageous to the public. It matters little to those seeking relief in sickness, whether the whole body of medical practitioners are incorporated together under one head, or whether the distinctions which time has recognised in practice, shall be kept up also in the government of the profession. The wants of the public have established the grades of physician, surgeon, and apothecary, and more recently of general practitioner; and whether the individual practitioner belonging, respectively, to each of these grades, shall be placed under the control of one general board, or of three or more bodies, so long as proper regulations are adopted to secure competent skill in medical practitioners of all grades, the public are really but little interested in the form of government under which this object is attained. On other grounds, there are serious objections to the incorporation of the whole body into one faculty, which require to be well considered and thoroughly balanced with the presumed advantages before they are too hastily cast aside as futile. Each grade of the profession should be fairly represented in such a faculty; at least, no medical practitioner should be excluded from a share in its construction, and a representative voice in its government. The most strenuous advocates for one general faculty will, we conceive, at once admit this, but who and what are medical practitioners? Are they the duly qualified and licensed persons provided by existing laws only? On the contrary, we believe that it may safely be affirmed that in large towns, the number of persons openly practising medicine without license or ascertained qualifications, is at least equal to that of the legally qualified. Leaving out of the question the whole tribe of professed charlatans, empirics, and nostrum-mongers, whether ocomotive or stationary, we have the chemists and druggists almost universally prescribing and

dispensing medicines to every applicant, and, moreover, contending for the right to do so. This evil has deeply taken root; so deeply, indeed, that we much question whether it is in the power of the legislature to eradicate it. There are limits to the power of the law, and any legal enactment which is in opposition to the general feeling of the community will either be openly set at naught, ingeniously evaded, or, after a time, gradually fall into desuetude.

We have, as our readers know, strenuously opposed the right assumed by the chemist and druggist to engage in medical practice; we have exposed the injury resulting to the public from their neglecting their own proper vocation, and interfering with matters of which they are profoundly ignorant; but we cannot conceal from ourselves that the community have acquired the habit of frequenting the druggists' shops, the only open shops for the sale of medicine, not only for the purpose of procuring the dose of rhubarb or aperient salts required for domestic purposes, but also with the further view of soliciting advice in every light ailment, and often in those more severe ones, where the experience of the Lady Bountiful of the neighbourhood fails her. The fact is, that the respectable old apothecary, who, keeping open shop, was in the habit of answering the demands of all comers, and at the same time acted as the consulting referee of the aforesaid Lady Bountiful, has, by his retirement from the field, transferred his retail transactions to the druggist and his aproned apprentice. This is, no doubt, one of the results of the Apothecaries' Act; and if the public have thereby gained a better instructed, and altogether more highly qualified race of medical advisers, they have also lost their old and confidential friends, who, by their gossiping habits and imposing gravity of demeanour, were usually in possession of the good opinion, and, consequently, of the physicking of their neighbours generally. The druggist, notwithstanding the admixture of the mental attribute of the aged female, which mingled occasionally with the sound common sense and long experience of his predecessor, the apothecary, is ill fitted to supply the place of the by-gone race.

The indigent mother, with her squalid infant in her arms, is unceremoniously handed over to the servitor in the shop, whose whole stock of medical lore is comprised in a knowledge of the characters and hieroglyphics by which the drugs in common use are designated, while the more sleek and portly dame, the stout yeoman, or mayhap the retired officer, are obsequiously ushered into the back shop, where their complaints are listened to and prescribed for by the master of the establishment

himself. These practices of the druggist, and these habits of the public, have grown with the growth of the existing generation; and though we feel most strongly the evils and mischiefs attendant upon them, and would make every attempt to restrain and amend them, yet we see not how they are to be summarily got the better of. It is true the practising of every unqualified person may and ought to be at once declared illegal, and, as such, the druggist should be subjected to sufficient penalties, on conviction of his infringement of the law; but the wants of the public must nevertheless be provided for, and the best method of making the requisite provision is not very apparent. The answer to the question of what is good for a pain in the head or stomach must be forthcoming, and the dose of tincture of rhubarb be attainable at an easy rate; and if the general practitioner is not prepared to afford the information sought for, and to supply the required remedy, the druggist or some other will be resorted to, in the teeth of every law which may be devised.

As it appears to us, one of two courses only remains open under these circumstances. Either the general practitioner must act in this respect as did the apothecary of old, or some qualification should be required of the druggist, some test of his competency for the office of prescribing for the trifling ailments which are of daily occurrence. The wants of the community are clearly made out, and ought to be provided for. If the general practitioner refuse to respond to these wants, and in order to do so he must supply his own medicines, and occasionally, we fear, even to the pennyworth of rhubarb for a penny, and the dose of salts at its marketable price, the public will not be restrained from seeking elsewhere that assistance which they are unable to procure from the only eligible source. The medicine will, doubtless, in such a case, be forthcoming, but the advice with which it should be accompanied is unattainable. The merits of this, however, are neither comprehended nor appreciated by them, and the recommendations of the drug-seller, mischievous as they must for the most part be, are at length equally prized with those of the highly-educated and in every way competent medical practitioner. This is an abuse which loudly calls for immediate attention, and requires the application of a suitable remedy without loss of time, as every day both adds to the mischiefs resulting from it, and tends to perpetuate its existence. It is one to which the Apothecaries' Company ought especially to look, not only because it comes within their more immediate province, but also because it is under their mismanagement and neglect that it has

arisen. Whatever may become of other bodies, it is in the highest degree improbable that the worshipful society can long retain the anomalous powers which they now possess, and sooner or later the general practitioner must be emancipated from their control. Here, at least, as it is well observed by the author of the article published in our 34th number, there is no antiquity to plead, no prescriptive right to be defended. This company has been officiating in its new capacity (as a board for qualifying medical practitioners,) for which it presents nothing to mark its suitableness for the brief period of only twenty-five years, and can have acquired no privileges to stand in the way of more suitable arrangements. It may, however, not unfitly be ultimately constituted a College of Pharmacy, and exercise that superintendence over the druggists and chemists which is so much required; and if it be thought desirable to meet the public wants for a medical practitioner of inferior attainments and lower grade, to license certain of them, after due examination, to prescribe at their own establishments for the slighter ailments of such persons as may resort to them for advice. This inferior class of practitioners is actually and extensively in existence, although wholly without ascertained qualification; either let it be put down, if practicable, or if suffered to continue, let it be recognized, and a qualification in some degree commensurate with the duties assigned to them be required of its members.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 25, 1841.

The PRESIDENT in the Chair.

READ, CASE OF SUBCLAVIO-AXILLARY ANEURISM SUCCESSFULLY TREATED BY OPERATION, BY F. C. SKEY, ESQ. F.R.S., ASSISTANT SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

THE aneurismal tumor in the case here related was of small size, and was situated at about an inch from the outer border of the left scalenus muscle. It had existed about two months when the patient put himself under the care of the author, and as it was rapidly advancing, the operation was immediately determined upon. The mode of performing the operation is thus described: I commenced an arched incision about three inches above the clavicle, close to the outer border of the sterno-mastoid muscle, and carried a little outwards, curving it in towards the clavicular origin of the muscle, which I exposed to somewhat more than one-half of its length. This flap, convex towards the acromion, I reflected with the platysma myoides muscle. A little careful dissection with a blunt silver knife exposed the lower belly of the omo-hyoideus and a portion of the sac,

through the walls of which the pulsations of the artery were visible. On the inner side the external border of the scalenus was also exposed, and by tearing away the cellular tissue in this space, by means of a blunt hook and a silver knife, the transversalis colli and supra-scapular arteries were brought into view, arising from the thyroid axis within the scalenus muscle, and proceeding outwards across the bottom of the wound to their destination. Above the transversalis colli was felt the subclavian artery, and above it the lower branches of the axillary plexus of nerves. Having slightly detached it from the rib, I had no difficulty in passing around it an armed needle at a quarter of an inch on the outer side of the scalenus.

The progress of the case was tolerably favourable until the seventeenth day after the operation, when appearances manifested themselves which the author attributed to phlebitis. The treatment of this symptom consisted in excoriating the surface over the affected vessels with water nearly boiling, and anointing the excoriated surface with ung. hydrarg. mixed with opium. The ligature separated on the 47th day after the operation.

The author declares his preference for the mode of incision adopted in this case, over the more usual one along the line of the clavicle, on account of the greater facility of approaching the vessel to be tied, as well as the greater probability of escaping troublesome, if not dangerous, hæmorrhage. The paper concludes with observations on the severe constitutional symptoms which frequently follow the ligature of large vessels, and which, in the case now related, were particularly urgent.

READ ALSO, A CASE OF ANEURISM OF THE RIGHT SUBCLAVIAN ARTERY IN WHICH A LIGATURE WAS SUCCESSFULLY APPLIED, BY JOHN P. HULTON, ESQ., SURGEON TO THE LIVERPOOL INFIRMARY. COMMUNICATED BY SIR B. BRODIE, BART.

The patient was a warehouseman, aged 35, of robust frame, and was admitted into the infirmary in December last, with a strongly pulsating aneurismal tumor immediately below the clavicle, raising that bone considerably from its natural position. The disease had its origin from an accident which occurred three months previously to his admission, when, having fallen from a pile of cotton, his fall was suddenly arrested by a hook which suspended him by his arm.

Notwithstanding the appearance of the swelling three weeks after the accident, and the great suffering which attended its rapid increase, he continued to follow his laborious employment until the 24th of December, and did not present himself at the Infirmary until the 30th.

Between that time and the 8th of January, when the operation was performed, a rapid increase took place in the size of the tumor. Unlike the author of the paper briefly alluded to above, Mr. Hulton prefers the mode of making the first incision which was first recommended by the late Mr. Ramsden, namely, that in the line of the clavicle, from a belief that thereby hæmorrhage is more likely to be avoided. "The integuments were drawn down a little over the clavicle, and with the platysma divided by a scalpel upon the upper end of the bone, to the extent of about three inches, the incision commencing nearest the shoulder, and terminating just be-

yond the sterno-mastoid muscle. The integuments beyond the incision and on the outer edge of the sterno-mastoid muscle, being pinched up, were next separated by one sweep of a sharp-pointed bistoury, cutting from within outwards, from about the middle of the first incision in a line upwards and backwards for two inches and a half, due regard being paid to the course of the external jugular vein."

By means of the freedom afforded by the external incision just described, the author was enabled to complete the remaining stages of the operation without difficulty, and a double ligature was passed around the artery, at a depth of two inches below the clavicle. The hand, arm, and shoulder were enveloped in a thick layer of carded cotton. The result of the case was most favourable; the ligature came away on the 12th day; the incisions healed rapidly; his recovery was uninterrupted by any bad symptom up to the 27th of February, on which day the aneurismal swelling had almost disappeared, and pulsation was distinct in the radial artery. After this, the swelling again became large and painful, though without pulsation, and matter formed in the situation of the sac. This being evacuated by a trochar to the amount of twelve ounces, was found to consist of very offensive pus, mixed with putrid blood. On the 3rd of April the patient was entirely well.

NEWCASTLE ON TYNE INFIRMARY.

PRACTICE OF SIR JOHN FIFE.

(Report by Mr. HOBBS.)

LITHOTOMY.

JOHN KENNAN, æt. 8, of Stockton, was admitted May 6, 1841, under the care of Sir John Fife, with the usual symptoms of stone in the bladder. His symptoms commenced about four years ago with a sudden attack of pain in the genital organs, and have continued more or less up to the present time. On admission the following particulars were noted:—great pain across the loins on pressure, incontinence of urine with considerable mucous deposit, elongation of the prepuce, prolapsus of the rectum following the straining required to void some few drops which are occasionally retained, and excessive irritability of all the neighbouring parts. Bowels open, appetite good, thirst very great, sleeps very little at night, his pain being then most severe. During five days which intervened between the date of his admission and the operation, he was treated with the warm bath, with Dover's powder and calomel every night, occasional doses of castor oil in the morning, and the infusion of linseed *ad libitum*, from the use of which he derived great relief. He was (with great difficulty) sounded several times, and a stone distinctly felt.

Early in the morning of the 11th, the day appointed for the operation, an enema was administered, which cleared out the bowels, and about an hour before the operation fifteen drops of laudanum were given him. The operation was performed in the usual manner with Mr. Liston's knife, and a curved staff; no difficulty was experienced, and the calculus was readily extracted.

There was considerable hæmorrhage, which ceased on the introduction of the tube wrapped with lint. He was put to bed, and soon fell into a sound sleep, in which he remained a great part of the day; the urine flowing freely through the tube.

He continued doing well till the 16th, when hæmorrhage came on, which for some time resisted plugging, but subsided in two or three hours by the application of cold cloths; a great quantity of blood was lost, and several large clots discharged. Since this he has not had one bad symptom; the wound is healing rapidly, nearly all his urine passes through the urethra, and he is now (26th) going about the ward much improved in health, strength, and appearance.

The calculus was of considerable size, and weighed six drachms.

STRABISMUS.

Margaret Callin, æt. 18. was admitted on May 6, under the care of Sir John Fife, with strabismus convergens, which had existed from childhood. On the 11th she was taken into the operating theatre, and the operation performed in the following manner:—Her head being supported on an assistant's breast, and the eyelids separated with the fingers, Sir J. F. raised the conjunctiva at the internal canthus with a forceps, and then made a vertical incision between the sclerotica and caruncula with a small scalpel; he next introduced a curved probe, and immediately caught the internal rectus muscle at its insertion, and divided it with a scissors; the eye was then straight, but there seemed some power to invert it slightly when the attempt was made in a direction downwards or upwards; perceiving this, Sir J. F., according to his usual practice under such circumstances, again introduced the hooked probe, first upwards and then downwards, drawing forward and dividing in each direction any tendinous fibres or cellular tissue which were exposed; after this the eye could not be inverted even upward or downward, and the deformity was perfectly removed. Very slight inflammation followed this operation, which required no other treatment than the application of warm water.

Sir J. F. considers it important in this operation to avoid wounding the sclerotica, which is often done with the sharp hook generally used.

MEDICAL ASSOCIATION OF IRELAND.

THE third anniversary meeting of the Association was held in Dublin on Wednesday, the 26th ult., and was attended by more than a hundred medical practitioners of the highest respectability, representing the profession in every part of Ireland. At one o'clock, the President, Richard Carmichael, Esq., took the chair, and the Secretary laid upon the table letters of apology and approval of the objects of the Association from more than seventy gentlemen whose personal attendance was prevented by various causes.

The President read a long and able address, of which our space will only permit us to give a very faint outline.

Medical reform formed the principal topic of Mr. Carmichael's address. In reference to the proposed election of a senate and councils, under

the bills of Messrs. Warburton and Hawes, Mr. Carmichael observed, that he considered the constituency those legislators contemplate as too promiscuous and too numerous to be likely to elect such councillors as would be qualified or fitted for the important trust of governing the profession. He would, therefore, propose to limit the constituency by providing, in the first instance, that all the legally-qualified practitioners, engaged in the practice of pharmacy, who keep open shops, shall be deemed incompetent to vote for members of council.

2. That no practitioner whatsoever should be empowered to vote for members of council, until he has been five years a legally-qualified practitioner.

3. That no man should be eligible to be elected a member of council who is a general practitioner, nor until he has been ten years legally qualified to practise.

Having surmised that the plans of Messrs. Warburton and Hawes would meet with most decided opposition from existing corporations, Mr. Carmichael proceeds to discuss the opinions lately put forth in the "Quarterly Review," the plans of Dr. Kidd, and Mr. Green, and the article which appeared in a recent number of the "Provincial Journal." To Sir B. Brodie's scheme Mr. Carmichael objects—

1. There is no provision that the profession shall be concerned in the selection of the members of this board of control; consequently, persons not possessing the confidence of the profession, and, perhaps, more remarkable for their courtly pliancy than for their talents and integrity, would, in all probability, be appointed by the government to the important office of regulating the profession.

2. This proposed board of control would, no doubt, hold its sittings in London, and there is no provision made that it should be assisted by councils in each great division of the United Kingdom; therefore it is not, in my opinion, likely that the interests of the profession would, under one board of control, sitting in London, be duly attended to in this country and in Scotland.

3. In this scheme of reform there is no expectation held out for the accomplishment of two of our leading principles of reform, viz. the union of physic and surgery, and the adoption of measures which are calculated to promote the gradual separation of pharmacy from the practice of medicine.

To the plan of reform which was sketched by a provincial physician in the Thirty-fourth Number of the Provincial Medical and Surgical Journal, Mr. Carmichael objects—

1. There is no provision made for unity of government, such as a senate, elected by the three councils, would supply.

2. It is proposed to fill up vacancies in the council afterwards, on the principle of self-election, which is objectionable, as each council would then become an irresponsible body to the profession: and—

3. As the election of members of council is, according to this scheme, to rest altogether with the universities and colleges, the great mass of the profession would not be represented, as these bodies exclude the great majority of their licentiates and members from any participation in the management of their affairs.

The modifications which Mr. Carmichael would

propose, as likely to answer all the objects of reform, and at the same time be less likely to meet the hostility of existing corporations, are the following:—

Let a council of — members be formed in each of the grand divisions of the empire, one half of whom may be chosen by the licensing corporations of that division, the other half to be selected from the profession at large, subject to the restrictions I proposed as amendments upon Messrs. Warburton and Hawes's bills, viz. that no practitioner, under five years standing, nor any practitioner engaged in the practice of pharmacy, shall be capable of voting.

If the present corporations could be induced to see the utility of an internal liberal reform, and admit all their licentiates and members, (with the exception of those who keep "open shops," and practise pharmacy,) into a participation of their honours and emoluments, *there would be no necessity to call upon the profession at large to delegate members to council, as the corporations alone would, under such circumstances, represent the entire profession.* But as the reverse is the case, it is absolutely required that at least one half of the members of council should represent such portions of the profession as have no voice in the management of the medical corporations. This necessity involves that of registration, which cannot be accomplished without expense, and hence the members of the profession must be taxed, in consequence of the malversation in office of the various medical corporations.

Let those councils elect from themselves — members to form the senate, with a certain proportion of non-medical men as lay assessors, the appointment of whom may be conceded to government. The business of the senate would be to make laws and regulations for the profession; that of the councils to have these laws carried into effect, to elect examiners, and to see that the examinations are duly conducted.

After the delivery of Mr. Carmichael's address, the secretary read the "report of the council." This consisted chiefly in a detail of the measures which had been carried into execution since the last meeting, and clearly demonstrated that the council had been actively and successfully engaged in forwarding the interests of the profession.

The "report of the treasurer" was then read. He strongly urged the necessity of creating additional funds, for the purpose of accomplishing two important objects.

One of these was the establishment of an agency in London, during the parliamentary sessions. It was of essential consequence that they should, in carrying out the great objects of reform and improvement, which they had in contemplation, have a paid agent, whose business it would be to watch matters before either House of Parliament, to look after and attend on the members of parliament who would be disposed to render them assistance, and to furnish the association with all necessary information, in order that they might be prepared to take proper steps in the proper time.

The second was the propriety of giving remuneration to a secretary. The gentleman who so ably and efficiently discharged the duties of secretary to the Association had, for the past two years, given up fully two-thirds of his time to his office;

and it was most unjust to expect that he would continue to act in a similar manner, without any remuneration.

Dr. Jacob of Maryborough, in a very excellent speech, dwelt at considerable length on the necessity of the Association making some effort to carry into effect the suggestions of the treasurer, and moved—

"That it is the opinion of this meeting, that it is at this important crisis absolutely necessary that a sufficient fund shall be placed at the disposal of the council to assist in carrying into effect the objects of the Association. It is therefore resolved that the present subscription of 10s. shall be the *minimum* to be received, but that donations to any amount will be accepted, without limitation, to the annual subscription."

This resolution was seconded by Dr. O'Grady of La Mancha, who placed five pounds at the disposal of the Association for the objects alluded to. This example was speedily followed by Professor Benson, and several other gentlemen.

Dr. Jacob of Dublin then moved—

"That the medical advice and assistance hitherto provided for persons in Ireland, who are unable to pay for such relief, and to which they are now entitled by the law and usage of this country, should not be withdrawn or diminished, and that all proposals to administer such relief according to the principles upon which general relief is extended to mere paupers, should be rejected; at the same time it is the opinion of this meeting that every necessary improvement in the management of the medical institutions should be adopted, and every abuse which is proved to exist in them should be corrected: and that ample provision should be made for their support, independent of insufficient and precarious voluntary contributions. It is also the opinion of this meeting, that placing the medical charities under the control of the poor-law authorities will prove destructive to the interests of these institutions, and of the poor, for whose benefit they are established, as well as ruinous to the character and welfare of the medical profession."

Several resolutions were next passed relative to medical testimony in courts of law; to vaccination by tender, &c.

Dr. Colvan of Armagh moved—

"That this Association, retaining, as it does, the general views with regard to Medical Reform, expressed in the tenth resolution of last year's congress, regrets much the want of attention to the interests of the medical profession and the public, lately displayed by the representatives of the country, when this subject was submitted to their consideration; that the Association cannot but attribute this neglect to the want of union within the profession itself, and that they earnestly recommend all medical reformers to waive minor points of difference, and co-operate zealously with any member of parliament who may be inclined to assist in procuring a fair discussion of the question of Medical Reform."

The officers of the Association for the ensuing year were then appointed, and the meeting adjourned.

GLASGOW COLLEGE.

MARCH 30.

MEDICAL REFORM.

A MEETING of senate being duly summoned and convened, the committee appointed by the senate to consider the bill for the better government of the Medical Profession, which has been introduced into the House of Commons by Mr. Warburton and Mr. Hawes, beg leave to report—

1. That, in the opinion of the committee, evils have arisen from the possession, by particular corporations, of local privileges, which render their licentiates alone legally qualified to act as medical practitioners in particular districts of the country, to the exclusion of all other persons, however highly qualified.

2. That it is desirable that those local privileges should be abolished, and a uniform system adopted, whereby the graduates of all universities, and the licentiates of all legally constituted medical corporations, shall be placed on an equal footing, in respect to the right of practising; so that those who have received certificates of their fitness to exercise the medical profession from any one of the established corporations, shall be entitled to practise in any part of the United Kingdom, without requiring to submit to a second examination, or pay for a second license.

3. That the most essential part of such uniform system must consist in the general adoption of a certain course of education, as the *minimum* entitling any one to become a candidate for a medical license.

4. That the measures proposed in the bill recently introduced into parliament are inadequate to the accomplishment of the objects in view, and could not be carried into effect without the most serious inconvenience.

5. That neither the proposed compulsory registration of licensed and qualified medical practitioners, nor any other measures, can be effectual in preventing unlicensed and unqualified persons from practising medicine, so long as there exists a demand for the services of the latter on the part of the public.

6. That the establishment of a new and permanent board, having power to control the universities and medical corporations, is highly objectionable and uncalled-for; all the real benefits contemplated by its establishment being attainable by merely enforcing uniformity as to a minimum course of study, to be determined on after due communication with all the established licensing corporations.

7. That the proposed election of a representative body by the entire medical profession in each of the three kingdoms, could not fail to produce a regular recurrence of discussion and agitation among its members, which would interfere materially with the ordinary avocations; while those best qualified to perform the duties of a representative would be least likely to use the means necessary to secure their election, and if elected would be least able to repair, from time to time, to a distance from their homes, for the execution of those duties; whence the appointments would inevitably fall into the hands of persons in whom neither the public nor the profession would have confidence.

8. That the provisions of the bill now under consideration would, if carried into effect, gradually undermine and ultimately supersede all the existing British Medical Schools and licensing bodies, with the exception of those seated in the three capitals of the United Kingdom, by confining the power of granting licenses to practise the medical profession to those three cities exclusively, or perhaps to London alone.

9. That considering the large amount of services gratuitously rendered to the public by the Medical Profession, the inadequate compensation received by many of its members for their long and expensive education, and for their laborious professional exertions: considering also that each degree of Doctor in Medicine is already taxed to the extent of ten pounds; and considering finally that it is the public, much more than the medical profession, which is interested in being able to distinguish easily betwixt qualified and unqualified practitioners; the committee is very decidedly of opinion that the expenses incurred by an improved system of medical legislation should be entirely defrayed out of the public purse, and not by tax imposed in any shape upon the profession.

The senate unanimously approved of this report, and directed that the same should be printed and circulated as extensively as possible.

ANALYSIS OF THE BLOOD.

THE following is the method employed by MM. Andral and Gavarret in their analysis of the blood.

The blood is received into two capsules, of equal capacity, each measuring 180 scruples. In one of these are collected the first and last quarters of the blood drawn; in the other, the second and third quarter parts. The first quantity is allowed to coagulate spontaneously. The second is beat up with a small rod, to obtain the fibrin, which is then washed with water.

When the first portion of blood has completely coagulated, the serum is carefully separated from the clot, and then are dried—

1. The fibrin obtained by the rod;
2. The serum;
3. The clot.

The dried fibrin is then weighed, and we obtain the quantity of this substance in the clot.

We weigh the serum after complete desiccation, and obtain the weight of water and solid parts.

Finally, the solid clot is weighed; the quantity of water lost during the process of desiccation gives the quantity of solid parts of serum contained in the dried clot. By subtracting from the weight of the dried clot the weight of fibrin, and the weight of the solid parts of the serum which it contains, we have the weight of its globules.

These different processes, then, give us

1. The weight of fibrin;
2. The weight of globules;
3. The weight of the solid parts of the serum;
4. The weight of water.

When we want to separate the organic elements of the serum from its solid parts, we must dry the serum perfectly: then weigh the residuum to estimate the quantity of solid parts in it, and then in-

cinerate it in a platinum crucible. The white residue represents the quantity of inorganic matter. —*Journal de Ch.*, No. V.

ARTISAN WELL AT GRENELLE.

THE water from this well has been analyzed by M. Payen. One hundred quarts (*litres*) contain,

	Grammes.	Cents.
Carbonate of lime . . .	6	80
— of magnesia . . .	1	42
Bicarbonate of potass . . .	2	96
Sulphate of potass . . .	1	20
Silicium } . . .	0	57
Organic matter } . . .	0	2
Peculiar yellow matter . . .	0	24
Organic matter . . .	0	24
	14	30

The same quantity of Seine water leaves 18 grammes 5 cents. of residuum.

PHRENOLOGY.

A CORRESPONDENT has forwarded to us the following from the *Phrenological Journal* of April:—

"A discussion, chiefly on organology, lately took place at the Medical Society of the London University, and, after some adjournments, terminated on the 26th of February. At the third meeting, Mr. Donovan, who was present as a visitor, was requested and undertook to examine and report on the mental qualities indicated by the heads of three members to be chosen by himself, from six who should be selected by a committee of the society. A fortnight afterwards each of these three gentlemen gave in a sealed paper, containing a statement of his dispositions and talents, to the best of his knowledge; and Mr. Donovan at the same time produced three phrenological inferences. When read to the meeting, the agreement, we are told, was so remarkable, and the discrepancies so few and unimportant, that the leader of the anti-phrenologists in the society rose up, and avowed a change in his views, in consequence of the discussion and the inferences from the heads."

INFLUENCE OF ARTIFICIAL FEEDING UPON THE MORTALITY OF INFANTS.

M. L'Abbé Guillard, chaplain to the General Hospital of Tours, states, in the hospital of X, (which he deems it inconvenient to name,) not a single infant has been suckled; all those who are received are nourished by hand, through a sucking bottle. In this hospital, a very exact account has shown that last year, out of 244 children, 197 had died at the end of the year! Of these, 116 lived only from a day to a month. Out of 127 infants in 1834, there remained only 29 at the end of the year. On the 1st of January, 1835, out of 362 infants, there remained alive only 127 at the expiration of twelve months.

BOOKS RECEIVED.

Report upon the Mortality of Lunatics. By William Farr, Esq., F.S.S. From the Journal of the Statistical Society.

Eleventh Annual Report of the Belfast District Asylum for Lunatic Poor. Finlay, Belfast, 1841.

Memoir on a New Kind of Medicated Pad Truss, for the radical Cure of Hernia. By Dr. J. Lafond. Eighteenth Edition. Bailliere, London, 1841.

Philosophic Nuts; or the Philosophy of Things, &c. By Edward Johnson, Esq. No. V. Simpkin and Marshall, London, 1841.

A General Outline of the Animal Kingdom, and a Manual of Comparative Anatomy. By Thomas Rymer Jones, F.Z.S. Illustrated by 336 Engravings. Van Voorst, London, 1841. 8vo. pp. 732.

Transactions of the Provincial Medical and Surgical Association. Vol. IX. Churchill, London, 1841. 8vo. pp. 538.

A Treatise on the Medicinal Leech; containing Remarks on the History, Diseases, and Management of them. By John Hudson and Son. Simpkin and Marshall, London, 1841.

The Sanative Influence of Climate; with an Account of the best Places of Resort for Invalids in England, the South of Europe, &c. By Sir James Clark, Bart. Third Edition. Murray, London, 1841. 8vo., pp. 378.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, May 28, 1841.—Floyd Minter Peek, John William Metcalfe, Thomas Jarman, William Moe Culpepper, Walter Maynard, James Lewis, John James Pocock, Charles Benjamin Painter, Alexander Gordon Melville, John Cresswell.

Monday, May 31.—Henry Digby Mitchell, John Macnamara, William Henry Kent, Richard Williams, Richard Pitt, Michael O'Regan, Francis Drummond Gilbert, John Newcombe Day, Joseph Gillman Barratt.

TO CORRESPONDENTS.

It is unnecessary for us to publish the letter of *Mr. Lee*, for, if his statements be correct, the paragraph alluded to by him could not have applied to the work mentioned in his letter.

A. F.—The Medical Reform bills are either withdrawn, or will not be proceeded with this year. For the same reason, nothing will be done relative to the medical relief of the poor.

Printed by THOMAS IBORSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JONIAN PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUSSELL, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, June 4, 1841.

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CLINICAL LECTURES
IN COURSE OF DELIVERY DURING THE PRE-
SENT SESSION,
AT
GUY'S HOSPITAL.
By JOHN MORGAN, Esq.
(Published with permission of the Lecturer.)
MONDAY, MAY 24, 1841.
LECT. IV.—On Burns.

GENTLEMEN,—I have, this morning, to direct your attention to the effects of heat upon the surface of the body. It is usual to divide this subject under two heads—burns and scalds; but this division is an improper one, and has reference merely to the nature of the heated substance which is applied, and not to the effect which is produced on the part. There is no real distinction between the two; for, whether heat be applied through the medium of a solid body or an ignited substance, producing what is called a burn; or whether it be applied through the medium of a fluid, occasioning a scald, still the local and constitutional consequences may be precisely similar, if the degree of heat be the same in both cases; but as solid or ignited bodies are capable of containing and retaining for a longer time a greater degree of heat than fluid substances, it frequently happens that more extensive injury is produced by the former, and this has given rise to the division. But the morbid action which follows the application of heat in any form is not in the slightest degree regulated by the medium through which it is conveyed. For this reason, I shall include, under the general term BURN, every injury occasioned by heat or fire, from the slightest redness on the skin, to the most extensive and deep-seated destruction of the solid parts.

I shall, therefore, divide burns into three kinds.

1. Into those which produce inflammation, without destruction to the life of the injured parts:
2. Into those which injure the vital powers of the cutis, not only occasioning separation of the cuticle, but subsequent suppurative inflammation on the surface of the cutaneous texture: and,
3. Into those which altogether destroy the soft parts, and produce a slough or gangrene of the affected structures.

First, then, let us refer to superficial burns or scalds, as they are termed. The symptoms of superficial burn must be well known to every one from personal experience, consisting in pungent pain, redness in the part, an increased degree of temperature from subsequent inflammation, and after a few minutes swelling to a greater or less extent. The pain is, as you know, in these cases aggravated by the slightest exposure of the part to heat. The local suffering from a superficial burn is more severe, at the first instance, than that

which is produced by an extensive destruction of parts from the same cause; for in one case reaction is readily produced in the part from the action of vessels which have been excited by an unnatural stimulus, without disorganization of texture; whereas, in the other case, the total destruction of vitality in the injured structures will render them insensible, and the surrounding parts must have time to set up the inflammatory process before any very acute local suffering is experienced. The inflammation succeeding a superficial burn will, if not very severe, subside in a few hours without producing any constitutional disturbance; and the treatment is extremely simple; consisting in the application of cold, by which pain will be mitigated, and the vascular excitement in the part diminished. It is the custom with old women to expose a slight injury of this nature to the action of heat immediately after the accident, by holding the part near a fire for the purpose of expediting the cure—*burning out a burn*, as they call it—and, although this mode of treatment appears ridiculous enough at first sight, yet the subsequent duration of pain is very often shortened by the process; for the parts are then gradually brought down to their natural temperature by exposure to an intermediate degree of heat, and the extent of reaction is thus certainly controlled. It is upon this principle, however, that medical practitioners have advised, and followed with success, a plan of treatment in other cases which I shall presently have occasion to mention to you.

This, then, is the most simple form of a burn, namely, redness, swelling, and pain, confined to the skin; but if the stimulus of heat have been carried to a greater extent, and an increased degree of inflammatory action is produced, we find that reaction will bring with it a different train of symptoms. Adhesive matter mixed with serum will be effused beneath the cuticle, and vesication, to a greater or less extent, will follow as a natural consequence. Now it not unfrequently happens in these cases of extensive burns or scalds, however superficial they may be, that the system will sympathise in an extraordinary degree with the local complaint, and that the effects will not be confined to the injured structures only; but, before reaction takes place, you will find the whole surface of the body sympathising with the wounded textures, the power of the vascular system being feeble and depressed from the shock which it has received. In the first instance the extremities will be cold, rigors will frequently occur, and the pulse will be weak and depressed. In such cases your first object will be to excite reaction, and you will endeavour to effect this purpose by having recourse to artificial means of restoring heat to the surface of the body. Your local treatment will, therefore, consist in the application of warm fomentations to the injured parts, and in wrapping the extremities in warm flannel coverings, for this will be the most

efficient mode of restoring the circulation upon the surface of the body. This plan of local treatment must be persevered in until a sufficient degree of vascular excitement has been set up to restore the natural heat of the body. This will form your local treatment, and you will have the same object in view in your constitutional treatment; namely, the excitement of the system to reaction, and consequently the most stimulating plan of treatment must be adopted. Wine, ammonia, brandy, and any other stimulants, may be given in quantities proportioned to the age of the patient, and the degree of depression under which the powers of life are suffering, until reaction has taken place. The safety of your patient will depend upon the active measures which you adopt to attain this object; but let me repeat that, in severe cases, until the surface of the body is capable of retaining its natural standard of heat without the constant application of artificial warmth—until the pulse rises, and the vascular and nervous systems have recovered from the state of depression under which they have laboured—until that time, in some cases, the only hope of saving your patient will be in following a strictly stimulating plan of treatment.

When reaction has been excited by such means, the treatment must be altered, and sometimes nearly reversed; for irritative fever will now be ushered in, and its progress will be indicated by a dry hot skin, a furred tongue, an accelerated pulse, which now becomes small and vibratory; thirst frequently excessive, and every symptom of febrile excitement, are present. The appearance of the injured structure is now altered; the vesications increase in size, and become distended with serum; the surrounding parts are red and inflamed, and the local sufferings are increased tenfold. Under these circumstances it becomes necessary to make use of those means which are best calculated to allay excessive nervous excitement, and to regulate the extreme degree of increased vascular action in the part. With this view, bloodletting has been occasionally had recourse to; but, gentlemen, it is in most cases a dangerous practice, and can only be justified where your patient is of a robust and plethoric habit, and when excessive local inflammation is incapable of being controlled by other means, so that gangrene is threatened by the extreme degree of inflammatory action. Country practitioners mention cases in which it has been attended by evident benefit to the patient, but such instances are exceedingly rare in large towns, and the danger of producing collapse by lowering the system too much, will always warn you against the indiscriminate use of the lancet in the treatment of burns. If the symptomatic fever should assume an inflammatory type, it may possibly be required, but generally the constitutional affection partakes of the asthenic character, and on this account we seldom employ bloodletting in the treatment of these injuries. Opium is a medicine upon which you will principally rely, and the first dose should be given in sufficient quantity to tranquillize the nervous system, and to procure sleep. The action of the anodyne may then be kept up by repeated smaller doses, but in the first instance opium must be administered in a sufficient dose to allay that high degree of excitement in the constitution from which we have to fear future bad consequences. The quantity must be of course regulated by the age of the patient, and the extent

to which irritative fever has been carried. You will attend strictly to the state of the bowels, and diaphoretic medicines will generally be found useful. The form which we commonly use in this hospital is the liquor ammoniæ acetatis, with camphor mixture and tincture of opium, according to circumstances. Any other formula, however, may answer the purpose equally well. With regard to the use of constitutional stimulants, in cases of burns, in which disorganization of the cuticle has not occurred, you will hardly ever find them necessary after reaction has taken place. You will find that by restoring the natural secretions, and endeavouring to allay nervous irritation by opiates, you will effect every object you have in view.

The constitutional disturbance which I have now described, and the treatment which I have recommended, will, for the most part, have reference to the effect of these injuries in children, for it very rarely happens that in adults, (unless the injury has been very extensive,) these serious consequences arise from burns, unless suppurative inflammation or disorganization has been produced in the affected parts; but in children a simple scald will frequently be attended by the symptoms I have mentioned to you, and will require the plan of treatment that I have recommended. The local treatment is almost equally important with the constitutional remedies, for by improper means a simple vesication may be converted into an intractable and dangerous ulcer. If you consider for a moment the state in which the parts are presented to your notice, and apply the principles which you have been taught in the lectures on inflammation, you can, I think, hardly hesitate in choosing the right path. You will see a part of the surface of the body subjected by an unnatural stimulus to the action of adhesive inflammation. You will see the cuticle raised by the effusion of adhesive matter and serum which are thrown out, and you will find the surrounding soft parts more or less discoloured by continuous inflammation. Now you know that if nature fail to repair an injured part by the first effort, namely, by adhesive inflammation, a second process must be set up, and suppurative inflammation will ensue. You will recollect that the constitutional sympathy is greatly increased by this second means of redress, and that the greater the extent of disease the more severe will be the irritative fever which accompanies it. When called, therefore, to a case in which extensive vesications have formed upon the skin from the application of heat, your first object will be to establish union by adhesion between the separated surfaces of the cuticle and the cutis; or, at all events, to facilitate the formation of new cuticle, by affording to the subjacent lymph a covering of the old, for if this be not accomplished, suppuration may possibly follow, and extend over the whole surface of the exposed and inflamed cutis beneath the vesicle. To effect this purpose, the divided parts must be brought into contact, in order that the process of repair may go on without interruption; and therefore, instead of waiting until the distended vesicle has burst, you will make a small puncture in the part, so that the fluid may escape, and the raised cuticle collapse. Nature will thus receive every assistance which you can give her, in restoring the parts to their natural state, and as often as the fluid collects again, it must be evacuated in the same manner,

and thus the newly-formed deposit of adhesive matter will remain undisturbed, until its perfect organization has completed the cure. The local application must depend entirely upon the state of the surrounding parts. If the heat, pain, and redness of the adjoining textures lead you to suppose that a source of irritation has been set up from excessive action, and the system has sustained no shock from the injury, you will make use of cold evaporating lotions. If, on the contrary, you have no indication of excessive vascular excitement, the best application will be, that which will keep the surface of the skin moist, and prevent abrasion. We generally use liquor calcis with oil or milk, but the greatest care must be taken to prevent the linen, by which any lotion is applied, from becoming dry, and adhering to the surface of the skin. Many a time have I seen the whole cuticle raised with a cloth, and a simple vesication in this way converted into an ulcer. If, therefore, very great attention cannot be paid to the patient, the better plan will be to make use of some mild ointment, as the ceratum plumbi, or unguentum zinci. It is for this reason that we very seldom make use of evaporating lotions in hospital practice, in cases such as those I am alluding to. You will usually find, however, that if proper attention is paid, a lotion will be by far the most grateful and useful application. This, then, will form your plan of local and constitutional treatment in cases of burns or scalds, in which the surface remains unbroken, and when no disorganization of texture has been produced. In speaking of this subject, I have of course taken an extreme case, and your own judgment will teach you to vary the mode of treatment according to the severity of the injury, and the degree of constitutional disturbance by which it is accompanied. It is in children that you will most frequently meet with the aggravated symptoms I have described to you.

We now come to those cases in which the vital powers of the cutis have been injured, and the cuticle destroyed, so that suppuration is the inevitable consequence. When from improper treatment in the first instance, or from the nature of the accident, the cuticle is removed from the surface of the injured part, and morbid vascular excitement has been set up upon the surface of the denuded cutis, we have then to contend with a train of local and constitutional symptoms, different in many respects from those which I have just mentioned. The first effect upon the system will in very severe cases be similar, for you will find the same depression of vital power, and the same diminution of animal heat upon the surface of the body. When I mention this state of constitution as the first symptom of the effect of a burn, I of course allude to extreme cases, for it very frequently happens that action takes place immediately after the injury, without any previous depression of the system. I therefore mention it as an occasional and not as a constant effect, but when it does occur, the same remedies will be proper in all cases, namely, the exhibition of stimulants in the first instance, and the application of warmth to the surface of the body. We will suppose, therefore, that reaction has taken place in a case of burn, in which the cuticle has been destroyed, and that suppurative inflammation is established upon the surface of the cutaneous texture beneath. You will then find it necessary, if the

sore is of large size, to support the powers of the constitution by generous diet and stimulants. Instead, therefore, of relaxing your active measures as in the former case, it will frequently become necessary to push them still further, for the demand which is made upon the system by a profuse secretion of pus, will require a corresponding support from your medical treatment. In addition to the use of opium, the stimulating plan of treatment must be continued, and the extent must be, as in other cases, proportioned to the state of debility in your patient. If you neglect to follow this rule, the powers of the system will become inadequate to establish the process of restoration; the whole extended surface of the sore will assume a sloughy, or in some cases a gangrenous appearance, and from want of action in the part, a mass of disorganized animal matter will thus cover, to a greater or less extent, the surface of the wound. This consequence of improper treatment, of poverty, or of neglect, is occasionally met with in patients who apply for relief at this hospital.

Now, gentlemen, the appearance of the granulations which arise from the cutis will generally be a very good guide to you in your constitutional as well as your local treatment, for when these are small, red, firm, and regular, you may be certain that the constitution is in a favourable state, and every deviation from this appearance will, with the instruction upon this part of the subject you have received in the surgical lectures, point out the want of action or irritability in the general system. Your constitutional treatment will consist in endeavouring to excite reaction in the first instance, and afterwards in allaying nervous irritation by opiates, and in administering stimulants and support in proportion to the demand made upon the system by the suppurating process. With regard to the local treatment, you will find that different writers and medical practitioners will recommend various plans of local treatment for burns, and each have certainly their respective merits. Some recommend the stimulating, others the contrary practice; but, gentlemen, whenever you hear a surgeon recommend, as some do, one plan of treatment for all cases of injury from the application of heat to the human body, you will do well to suspend your judgment until experience has convinced you how far such a theory may be applied with advantage to practice. From what I have been able to learn with regard to the best treatment of burns, (and we have, as you must be well aware, abundant opportunities of witnessing the effect of these injuries in our hospitals,) as far as my experience goes, the treatment of burns differs in no one respect from that which we adopt in other cases of diseased action or accidental injury: and as you know that we have not one local application which can be used in all cases of slough, of ulceration, or of adhesive inflammatory action in any part of the human body, so you will find that in burns, unless you vary your local remedies with the changing appearance of the sore, your practice will be unsatisfactory to yourself and to your patient, to say nothing of its empirical nature.

Dr. Kentish has published a work to prove the efficacy of the local application of turpentine as almost a specific for burns and scalds, and from the cases which he has related, as well as from the experience of others, it may certainly be considered as a very useful application, but not in all cases. It

is a powerful stimulant, and in parts which assume an unhealthy appearance from want of action it will be found a valuable remedy; but in extensive superficial scalds, and particularly in children, you will find that the agony which is produced by its application will excite in some cases a degree of constitutional irritation which will render its use not only improper, but occasionally dangerous. However, as a stimulant before reaction takes place, and in cases of slough from burns, or from other causes, we frequently apply it with very great advantage. The application of turpentine is recommended only in the first instance to stimulate the affected parts to healthy action; after this object has been effected, its use is to be discontinued, and other remedies are then to be applied. I have seen the application of turpentine and of cold tried in different individuals suffering from similar injuries from burns, and in most cases I have found that any advantage which may be derived from the turpentine plan is overbalanced by the increase of suffering which it occasions; but, certainly, if the patient will submit to it, and the constitution will bear the stimulus, the cure is hastened by the local application of turpentine in the first instance. In children, however, gentlemen, be careful how you use it in extensive burns, for the increase of local irritation which it occasions will render it a dangerous remedy.

The plan of treatment which you will find the most useful in these cases of burn, in which the cuticle has been destroyed and the cutis has been injured, will be, in the first instance, to promote the suppurative process by the application of warmth and moisture to the part. If the weight of a light bread and water poultice can be borne, it will answer the purpose. If inconvenience is felt from the weight of this application, a cloth kept wet with the liquor calcis, and oil, or milk, will be found one of the most useful means you can employ. Another local application will also be found extremely useful and grateful to the patient, I mean the application of flour or starch lightly powdered over the surface; chopped cotton wool has been recommended, but I prefer flour or starch; flour I have found the best.

After suppuration has been established, and granulations are beginning to arise, the case may be treated as one of simple superficial ulcer, and you may apply the zinc ointment, the ceratum plumbi superacetatis, the unguentum cetacei, or any other which the state of the ulcer may require. You will frequently find, that after an ointment has agreed very well with a sore of this kind for a short time, it will assume an unhealthy appearance without any apparent constitutional cause; and it will be by constantly changing the local application upon the first indication of altered action, that you will be enabled to assist nature in healing that sore in the quickest possible manner, for in almost every case the cure will be protracted by a perseverance in the exhibition of any one particular local remedy. Ulcers which arise from burns require a change of treatment much more frequently than ulcers arising from any other cause. A difficulty will sometimes arise in producing cicatrisation of these ulcers, from the growth of loose, flabby granulations which rise above the level of the skin. These you will endeavour to remove by pressure constantly applied

to the part, and by the application of astringent lotions. Lint, dipped in a solution of alum, or any other astringent wash, is to be applied to the part, and a piece of sheet-lead is to be bound upon it by a roller. The application of the nitrate of silver, or some other caustic, frequently becomes necessary, but these are cases always extremely tedious.

This will form your plan of treatment in extensive destruction of the cuticle, and superficial injury to the cutis from burns, and I shall now shortly describe to you the third form of injury arising from the same cause—that in which the vitality and organization of the whole cuticle are destroyed, together with the subjacent soft parts to a greater or less extent. This is by far the most serious effect of the application of heat, and the most important in its consequences. The constitutional symptoms are always severe; the extremities becoming cold, and the patient, from the first, being affected by cold shiverings. Rigors occur at irregular intervals, and are proportioned, both in frequency and degree, to the extent and severity of the local injury. The shiverings which occur in these cases are greatly aggravated by exposure to the air or to cold; the pulse is quick and feeble, sometimes imperceptible. Vomiting usually comes on very soon after the accident, and hiccup is not an uncommon symptom. The patient is comatose, and in severe cases dies in that state before reaction has taken place, and before the end of the second day. If the constitution rally from this first shock, and reaction come on, the highest degree of symptomatic fever will be ushered in, and it has been observed that when the case terminates fatally from this cause, the patient usually dies before the twelfth day. If he survive that period, an abatement of febrile excitement usually takes place, but a secondary fever sometimes occurs between the twelfth and thirtieth day, which is usually the cause of death. It is, therefore, asserted that if the case terminate fatally after that time, it will be caused by slow exhaustion of the powers of life, by tedious, profuse suppurations, and by hectic paroxysms; but this statement is not in every instance borne out by facts.

The local appearances of a sloughing burn will vary in different cases. Sometimes the disorganised parts will present an indurated dark appearance, in other cases a dirty white colour, but generally surrounded by dark red discolorations and a diffused inflammatory blush. Sometimes the dead parts will be of a dark purple hue, surrounded by an areola of florid red. But in all cases you may ascertain the situation of a future slough by the insensibility of the discoloured parts.

The constitutional and local treatment of these cases is precisely similar to that which will be required in gangrene, and it will be a needless repetition of what you have heard in the surgical course, to enter into a minute detail of the symptoms and treatment of these injuries. I will sum up, however, in a few words, the more important remedies in these cases. You will recollect that in the first instance you have to excite the system and the part to reaction, and to the restoration of animal heat to the surface of the body. To effect this object, you will administer the most powerful stimulants. Bark, ammonia, opium, wine, or brandy, will form nearly your whole pharmacopœia upon such occasions. You will apply warmth to

the surface of the body, and use the most stimulating applications to the part, as nitric acid, or turpentine, and cover the wound with a warm poultice to promote suppuration. You will persevere in this constitutional treatment until reaction takes place, and even after symptomatic fever has been produced; for until the dead parts have been thrown off by the sloughing process, and healthy granulations have arisen from the surface of the wound, your main dependence will be upon the exhibition of opium, and the support which you give to the system by stimulants and generous diet. After this period the wound is to be treated as a common granulating ulcer.

The after treatment of burns, in which there has been loss of substance in the skin and subjacent structures, will require the greatest attention on the part of the medical attendant; in the first place, to prevent unnatural adhesions between two granulating surfaces; and secondly, to prevent subsequent deformity from contraction of the skin surrounding the eschar. The first may be prevented by common attention, and the second by daily using extension, to prevent this disposition to contract in the part. This extension of the cicatrised parts must be continued for months, and even for years after the wound has been healed, for the tendency to contraction will continue for a very great length of time after the injured parts have to all appearance regained their natural form and condition. You are not, therefore, to suppose, that after an extensive burn has been healed all danger of future contraction is at an end, for the greatest degree of contraction sometimes takes place after the wound is cicatrised. Your treatment and prognosis will therefore be regulated by a knowledge of this circumstance.

But some cases will be met with after a loss of cutaneous texture from burns, in which the greatest attention on the part of the surgeon to prevent contraction will be unavailing. These generally occur about the face and neck, where extension is not easily employed. Now, gentlemen, I know that some of our medical men have, upon being shown cases of this kind, censured the conduct of their medical brethren for neglecting the patient and allowing such deformity to exist; but it is one thing to find fault, and another to point out a remedy for that fault, and I do assert, that in some cases of extensive burns upon the face and neck, it is impossible, by any means with which we are acquainted, to prevent some degree of deformity. When these critics have proved by fact, and not by theory, that such a discovery has been made, I shall be most happy to learn in what that discovery consists. Until that time I shall always prepare the minds of my patients for the probable results of these injuries, and would advise you, if you value your professional reputation, to do the same.

An ingenious operation in these cases has been recommended, and performed with success, by the late Mr. Earle. It is applicable only to cases of long standing, in which contraction is complete. It consists in removing the cicatrix completely by incision, and allowing the space between the separated edges to fill up by granulations, keeping the divided surfaces asunder by artificial means. This plan will answer in some, but not in all cases; I have tried it in contraction of the skin of the face and eyelids without success; I had a patient some years ago in Naaman's ward, whom I endeavoured

to relieve by removing the cicatrix of a burn, which, from its contraction, had everted the lower eyelid. He received not the slightest benefit from the operation, for the contraction returned at the wound cicatrised. He then placed himself under the care of Mr. Green at St. Thomas's Hospital, who completely relieved him by removing the cicatrix a second time, and raising a portion of skin by dissection from the temple, which he brought down and laid upon the wound between the divided edges; the flap of skin adhered firmly, and no future contraction took place, and I have several times performed the same operation with complete success.

This leads me to say a few words with regard to a modification of the Taliacotian operation, for the restitution of lost parts, which I have, I believe, been the first to put in practice, and which, I think you will allow, possesses considerable advantages over the more common method. Instead of raising a portion of integument, leaving it connected by a narrow strip, and twisting this over to adapt the raised portion to the part on which it is to be applied, I operate by *sliding* the neighbouring skin in the wished-for direction.

In the year 1825, I performed this modification of the Taliacotian operation, for the purpose of forming a new lip. The patient had suffered from cancer in the under lip, which had been removed two years before, and the edges of the wound caused by its removal brought together, so that very considerable contraction ensued. The disease returned, and when admitted he had an extensive cancerous ulcer enveloping the whole of the chin and lower lip, extending to the outer corners of the upper lip. In this case the cervical glands were not affected. Now of course it became necessary to devise some plan for the formation of a new lip after the removal of the cancer, for it was evident that, after removing the diseased parts from the lip and side of the chin, a very large space would be left, which would granulate, contract, and produce horrible deformity. I accordingly carefully dissected off the diseased parts, and then made two free incisions from the angle of the lower jaw towards the opposite side, so as to insulate a portion of integument beneath the skin, corresponding in size with the chasm left by the removal of the cancer. This portion I then detached in the middle, and slipped up over the lower jaw, and you will see at once that remaining connected as it did with sound structures at the angle of the jaw, the circulation was easily carried on, and a much better chance of success ensued than if it had been merely connected by a narrow tongue, and this twisted on itself. This operation was eminently successful; the cicatrix of the upper edge of the transplanted portion of integument formed a very respectable lip, and the wound in the neck caused by its loss healed readily, and without being followed by undue contraction.

(Mr. Morgan then demonstrated his method of operating, but as he mentioned his intention of enlarging on this subject hereafter, we shall defer further notice of it.)

Burns sometimes prove fatal from the inflammation which they produce in the neighbouring parts—when occurring upon the neck from inflammation of the fauces, œsophagus or trachea—on

the thorax from a similar affection of the pleura and lungs, and upon the abdomen, an extensive burn will sometimes produce peritonitis. Cerebral effusion also occurs from the general disturbance in the vascular and nervous systems. In these cases local and general bleeding, according to the strength of the patient, will be necessary; and as this consequence frequently occurs from metastasis, it will be right to apply stimulants to the sore, in order to produce a healthy discharge from the part. These consequences of burn are dangerous in the extreme, for the system is unable to bear that degree of depletion which is necessary for the removal of the disease, though patients do occasionally recover even under these unfavourable circumstances.

To sum up, then, the substance of what I have endeavoured to communicate to you upon the subject of burns, you will recollect that in cases of superficial burn in which the parts are excited to increased action, without disorganization of texture, and in which the system has received no apparent morbid impression from the local injury: in these cases you may consider the diseased action which follows as a local affection. You may apply cold to the inflamed parts for the purpose of restraining excessive inflammatory action, and alleviating the suffering which must necessarily result from that cause. But in cases of extensive injury to the skin from the application of heat in which the system has sympathised, warmth is to be applied to the surface of the body, and stimulants are to be administered until reaction is produced. Subsequent constitutional irritation may be controlled by opiates, and if it is probable that a large demand will be made upon the powers of the system by an extensive sloughing or suppurating process, you will have this circumstance in view in your after treatment, and continue by medicine and by diet to assist nature in the efforts which she is called upon to make in the process of redress. But remember that, that whilst you are giving stimulants, you are never to apply cold locally, and if the application of cold to the part is necessary, it never can be necessary to increase vascular excitement by a stimulating plan of treatment.

Next week I shall refer to some subjects connected with ophthalmic surgery.

ON SONOROUS "BRUIT" OF THE ARTERIES IN CHLOROSIS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—Allow me, through the medium of your valuable journal, to call the attention of the profession to a phenomenon, which, though not generally known, is, I believe, pathognomic of that peculiar disease, unfortunately still designated in our medical nomenclature by the very unscientific name of chlorosis, or *green sickness*; and as Dr. Marshall Hall, in his otherwise very graphic description of the disease, in the *Cyclopædia of Medicine*, omits all mention of this symptom, I trust I shall not be uselessly occupying your space by the few following remarks, and one or two cases illustrative of its value as a diagnostic sign.

The number of diseases with which chlorosis is liable to be confounded, renders it a matter of importance that we should possess some means of diagnosis capable of preventing very frequent and serious mistakes, and the mischievous treatment consequent thereon.

In nine cases out of ten, the presence or absence of a deranged state of the generative organs determines the practitioner as to his view of the case; and though we may admit that chlorosis is not only very generally attended with, but often influenced by, a particular state of these organs, still I believe, with M. Andral and others, that its essential cause exists in an alteration of the blood, not inaptly designated by M. Bouillaud, "*Hydremia*," and if so, that any appreciable sign furnished by the blood itself, or the vessels through which it passes, will be the best evidence of its existence; such a physical symptom we do possess, in a peculiar sonorous "*bruit*," heard upon applying the stethoscope over the course of the arteries, but especially of the carotids, and first mentioned, I think, by M. Bouillaud, under the expressive term of "*bruit de diable*." This consists in a modification of the common "*bruit de soufflet*," differing from it in being continuous, without any intermission, and has been well compared to the sound produced by the familiar toy, called a *devil*. (This toy is simply a round flat piece of ebony, to which a rotatory vibration is given, by means of a coil of string running on a groove in its circumference.) Although continuous, this "*bruit*" does at intervals present an increased degree of intensity, a kind of regular paroxysm, always coinciding with the arterial diastole, and the ventricular systole, in the same manner that the toy in question produces a stronger or weaker *whirring*, according to the force with which it is vibrated. It may also vary from a high note to a low one, the highest imitating the sound of the above toy, the lowest very closely resembling the vibratory murmur, heard upon applying a conch shell to the ear, and which, as these terms are far from euphonious when expressed in English, I would ask the permission to denominate the "*bruit de conque*;" this, perhaps, is the most common form under which we meet it, and I may remark, that I believe it will be found, (as indeed it might "*a priori*" be argued,) that the intensity of the sound will vary according to the intensity of the disease.

In confirmation of the utility of this sign, in enabling us to distinguish chlorosis from the various diseases for which it is liable to be mistaken, (and *vice versa*,) I will relate two cases out of many which have fallen under my observation.

CASE I.—Sarah Mumford, æt. 18, of a pale complexion, and that peculiar glassy eye so common in phthisical patients, first menstruated at the age of 15; the catamenial discharge had always been pale and scanty, and since their first appearance she had been in a declining state of health. Previously to my seeing her, a physician had been consulted, who gave it as his opinion that there was disease of the heart and liver, and no hopes of ultimate recovery. Upon coming to me she stated that for the last three years she had suffered from shortness of breath; that for the last eighteen months the dyspnoea had become very distressing, and she found great difficulty in walk-

ing up stairs, or, indeed, in making any exertion; for the same period she had been subject to palpitations and frequent starting in her sleep; she also complained of an acute pain in the right hypochondrium and epigastrium, at intervals very severe, and augmented by pressure. There was loss of appetite and frequent headache, tongue humid and pale, pulse 80, vibrating, no leucorrhœa, no vomiting, occasional œdema of the ankles.

Auscultation and percussion did not indicate any disease of the lungs; the pulsations of the heart were preternaturally strong, and its sounds clearly distinguishable in every part of the chest, both anteriorly and posteriorly, but were unaccompanied with any abnormal "bruit." Upon applying the stethoscope over the course of the carotids, the sonorous "bruit," at its greatest intensity, was immediately recognized.

I, not without hesitation, ventured to differ from the talented physician who was first consulted, but so thoroughly convinced was I, from the presence of the "bruit de diable," that the case was one of chlorosis, accompanied with neuralgic affection, that I determined upon commencing a course of iron, and after administering a purgative, ordered the following prescription:—

Sulphate of iron,
Carbonate of soda, } of each one half drachm.
Sugar

Powdered myrrh, one drachm; make thirty-six pills, to take one twice a day.

Under this treatment there was a gradual amendment, the pain becoming less acute, and her health generally improved. At the end of a month I lost sight of my patient, but recommended that the treatment should be continued, which she did with great perseverance for three months; and four months after I had the satisfaction of finding her perfectly recovered, and able to resume her situation as a servant.*

CASE II.—Mrs. P., æt. 26, of a fair complexion, stated that she had generally enjoyed good health till within the last six months, when she became sensible of a pain in the epigastrium, which, though at first slight, soon became severe, accompanied with loss of appetite, and she found herself gradually losing strength and flesh: she had been successively under the care of two medical men, but had derived no benefit. Her state when I saw her was as follows:—Lancinating pains, extending from the epigastric to the left chondriac and hypochondriac regions; pains particularly felt after eating, not increased by pressure; occasional nausea; tongue foul in the centre and injected at its edges, habitual constipation, *menstruation regular, no leucorrhœa*. At first sight this appeared to be a case of chronic gastritis, but, upon applying the stethoscope, a slight murmur was audible in both carotids, being what I have called the "bruit de conqure;" the pills, with the sulphate of iron, were prescribed, and at the end of three weeks she was apparently well, but as the murmur in the arteries still persisted, the remedy was persevered in till it had entirely ceased, which was the case in another week, and since that time there has been no recurrence of the disease.*

Here we have two cases in which errors had been committed by men of experience; and I also

* As a general rule, I believe that small doses of iron, continued for a length of time, will produce their specific action with more certainty and less inconvenience than larger ones.

should most probably have erred, had I not possessed a means of diagnosis which the gentlemen who had preceded me were not aware of.

If it be true, then, that this sonorous bruit of the arteries, and that peculiar condition of the blood which constitutes chlorosis, bear to each other a constant relation of cause and effect, I think we can have no hesitation in admitting it as a more eligible means of diagnosis than that proposed by Dr. M. Hall in the following passage:—

"There is another case in which an analogous state of the blood exists, viz. in profuse hæmorrhage.

"The distinction is not always easy. One of the best sources of the diagnosis in doubtful cases, is the degree of susceptibility to faint from the deduction of blood. This circumstance, added to the general symptoms, and the inefficiency of those remedies which are adapted to the case of inflammation, is an important criterion of pains which are not inflammatory."

I am, gentlemen,

Your obedient servant,

T. H. SHUTE, M.D.

Grafton-street, Fitzroy-square, June, 3, 1841.

CONTRIBUTIONS TO THE PATHOLOGY OF CHILDREN.

By P. HENNIS GREEN, M.B.

LECTURER ON DISEASES OF CHILDREN AT THE HUNTERIAN SCHOOL OF MEDICINE.

CHRONIC HYDROCEPHALUS.

(Concluded from page 129.)

IN the 33rd Number of the *PROVINCIAL MEDICAL AND SURGICAL JOURNAL*, I related four cases of chronic hydrocephalus; upon these cases, and on some points of the history of the disease, I would now offer a few observations.

Chronic hydrocephalus must not be regarded as a chronic stage or form of acute hydrocephalus, although the name indicates such a connexion between the two diseases; they are totally distinct affections, and never convertible one into the other. Acute hydrocephalus, for example, never terminates in chronic dropsy of the brain, in the same way that acute pleurisy or peritonitis may end in chronic inflammation; the causes of acute hydrocephalus are different from those of chronic hydrocephalus; the pathological characters of the two diseases are widely different; in a word, the one is an inflammatory affection of the brain or its membranes; the other a simple augmentation of the cerebro-spinal fluid, depending upon some original condition, of which we are as yet ignorant.

Chronic hydrocephalus may be distinguished into three varieties or species. The first species affects the fœtus in utero; the child is born with a large head; the existence of hydrocephalus is manifest from the moment of birth, and the infant is soon cut off by convulsions. The second species of chronic hydrocephalus is also congenital, but the size of the head at birth is diminished, and the fontanelles are usually closed. I have not seen any example of this form myself, which belongs rather to diseases of infants (new-born) than of children, but Gölis assures us that almost all the subjects of it are either born dead, or die

soon after birth. Should the infant survive for a few weeks or months, (or in rare cases for a year,) the head presents a very peculiar appearance; it is flattened laterally, so that the transverse diameter of the skull is much smaller than the antero-posterior; the forehead is flat; the eyeballs are in constant convulsive motion; the pupils widely dilated and insensible; the senses are more or less completely lost; the bowels constipated; the evacuations passed involuntarily. The toes are generally flexed under the sole of the foot, which is strongly arched, and the extremities are atrophied.*

The third species of chronic hydrocephalus is developed some time after birth. The child is born apparently in good health; the size of the head is natural; the functions of animal and organic life are undisturbed; but after a lapse of time certain nervous symptoms present themselves, or the child is suddenly seized with convulsions; the head then begins to enlarge; the fontanelles and sutures give way; the senses become obtuse; the motor powers are deranged, and the characteristic signs of chronic hydrocephalus gradually manifest themselves one after the other. The period after birth at which the first symptoms of the disease may appear is variable; in one of the cases which I have related, the child was thirteen months old before any increase in the volume of the head, or any remarkable symptoms were noticed; the first symptom being a sudden attack of convulsions. In the second case the child seemed to enjoy good health up to the age of fifteen months, when she also was attacked by convulsions without any apparent cause, and the head began immediately to enlarge. In the third case, the little patient was twenty months old before any symptoms were observed; and in the fourth case the child was six months of age.

As the form of chronic hydrocephalus, of which I now speak, is, perhaps, the only one that admits of cure, it becomes a matter of the greatest importance to ascertain the early symptoms which indicate its approach. In some cases, the disease is ushered in by a sudden attack of convulsions, after which the child's head is observed rapidly to enlarge. In other cases the enlargement of the head is preceded by a certain train of symptoms which I shall now proceed to describe. I regret much that I have had little or no opportunity of accurately observing any cases of chronic hydrocephalus from their earliest period; I shall therefore freely avail myself of the description transmitted to us by Gölis, and the more readily, since his treatise on this disease has neither been translated into English, nor borrowed, as far as I know, by any of our modern writers on diseases of children.

Amongst the earliest symptoms of this form of chronic hydrocephalus, we may observe a remarkable change in the temper of the child; the slightest circumstance excites anger or laughter; the transitions from one state of temper to the opposite are very sudden, and not to be accounted for. This, however, soon passes away, and is succeeded by indifference or stupidity; the child complains of heaviness or dull pain of the head, with occasional dizziness; the eye is dull, and the power of vision enfeebled; there is a disinclination to speak or move about; a certain degree of failing in the muscular power and a consequent loss of

energy in the voluntary motions; a tendency to avoid mental or bodily exertion; the senses become gradually weak, and, in children who are able to walk about, the gait is tottering, like that of a drunken man. Such, according to Gölis, are the symptoms which characterize the approach of chronic hydrocephalus.*

It must, however, be acknowledged, that these symptoms are extremely equivocal, and that it is impossible for us to determine with any degree of certainty the existence of chronic hydrocephalus, until it has made further advance, and produced some permanent alteration of the intellectual faculties, the organs of sense, or the motor powers.

One of the first symptoms worthy of notice is a peculiar emaciation of the body, principally observed in the lower extremities, while the appetite remains good, the sleep undisturbed, and no evident cause exists for this disturbance of the process of nutrition. The bowels are constipated in this, and indeed in the succeeding stages of the disease; the abdomen presents a natural appearance, or, from the emaciation of the lower extremities, may seem to be enlarged, but it never is drawn in towards the spinal column, as we find it in many cases of acute hydrocephalus. The appetite is often increased. Symptoms connected with the organs of sense are among the first which manifest themselves. The eyes have a glossy appearance, and the power of vision very soon becomes weak; gradually decreasing as the disease advances, until total blindness ensues. The sense of smell is also enfeebled, and sometimes perverted. The sense of hearing, on the contrary, is at first acute or exaggerated, and slight noises awake the child from sleep, or excite screaming, often accompanied by convulsions. This apparent anomaly, however, soon passes away: the hearing, like the other senses, becomes dull, and is gradually lost. The intellectual functions are rarely disturbed at the beginning of the disease; but in some cases the memory is partially injured, the child being unable to recollect certain familiar names or terms; in other cases the child, who, perhaps, had just begun to articulate a few words or sentences, ceases to speak, and never recovers the power of speech. When the disease attacks children who are already able to speak, Gölis remarks that the articulation becomes nasal, (*schnefeln*), and slow. The pulse and respiration do not furnish any signs worthy of notice; the former is natural, and not slow, as in cases of acute hydrocephalus; the respiration is also natural, but the peculiar deep sighing of cerebral affections does not occur before the second stage, when the disease is completely established. According to Gölis, the first stage of chronic hydrocephalus is often accompanied by a peculiar convulsive affection, which bears a close resemblance to laryngismus stridulus. "In other cases," says he, "during the first period I have observed a very curious species of cough; after some crying and coughing, the child becomes stiff; the whole body blue; the child lies for a minute totally deprived of breath, and the respiration is restored with a loud cry. In the latter stages of the disease, and in infants, this is a very constant symptom, and one of a very dangerous nature."†

The motor powers of the body are affected at a very early stage of chronic hydrocephalus. The lesion generally consists in a simple diminution of

* Gölis, vol. ii. p. 32.

• Loc. cit. page 56.

† Loc. cit. page 43.

muscular power, and not in convulsive action; partial paralysis or contraction of the muscles, such as we find in cases of chronic meningitis. One of the earliest signs is a difficulty of sustaining the equilibrium of the body; the child is unable any longer to walk firmly or securely; even in infants this loss of muscular power is indicated by an inability to sustain the sitting posture, or to keep the head erect on the shoulders. As the head enlarges, the lower limbs gradually become weaker, until total paralysis ensues.

The symptoms which I have just related are those which usually accompany the third species of chronic hydrocephalus in its early stage. When, together with these signs, the head begins to enlarge, we can have little doubt of the existence of the disease; the symptoms now become more characteristic every day, but as they are well known to every medical man, I shall not dwell on them here; the powers of mind and body slowly decay, until life is reduced to a mere state of vegetation, or convulsions supervene, and put an end to the sufferings of the little patient. My object, in the present paper, being merely to direct attention to the early symptoms of chronic hydrocephalus, I have not touched on the pathology of this affection, or on the treatment which seems to afford the best chance of success. I shall, however, take another opportunity of contrasting the premonitory and first stages of chronic dropsy of the brain with those diseases from which we should endeavour to distinguish it; and these are hypertrophy of the brain, (with enlargement of the cranium,) cerebral tubercle, and chronic meningitis.

London, June, 1841.

CASE OF INCONTINENCE OF URINE

FROM

SLOUGHING OF THE URETHRA.

BY JONATHAN TOOGOOD, ESQ.

SENIOR SURGEON TO THE BRIDGEWATER INFIRMARY.

IN the sixth volume of the Medico-Chirurgical Transactions, a case of successful treatment of incontinence of urine, consequent on sloughing of the bladder from injury during labour, is related. Several such cases have fallen under my notice, but one only soon after the receipt of the injury, which was caused by the pressure of the vectis during delivery, the urethra having unfortunately been made the fulcrum. Happily for the poor woman, the mischief was discovered early. On introducing a catheter into the bladder, and passing my finger into the vagina, a large opening was detected communicating with the bladder, into which, however, the finger could not be passed. Her situation became miserable from the constant passage of the water, but she was otherwise in good health. Both her husband and herself being aware of what had happened, and conceiving the case irremediable, refused any attempt at cure; but after some trouble they were prevailed on to try the following plan.

A very large elastic catheter was introduced through the urethra, and supported by passing a piece of a sponge into the vagina of sufficient size to fill it; over this a napkin was folded, and the

catheter secured to it. A cork was put into the mouth of the instrument, and the water drawn off every two or three hours. She immediately derived comfort from this method of treatment. There was no difficulty in keeping the instrument in its proper situation whilst she remained in bed, and the urine was retained in the bladder. As the artificial opening healed, the size of the catheter was lessened, the pressure was kept up for three months, at the expiration of which she obtained the complete control of the bladder.

Bridgewater, May, 1841.

PROVINCIAL

MEDICAL & SURGICAL JOURNAL.

SATURDAY, JUNE 12, 1841.

THE registration being now taken, and, as far as the information to be acquired from it is concerned, placed beyond the possibility of being impeded by a statement of the objections to which its plan is open, we must express our conviction that, in one point at least, the results sought to be obtained are likely to prove in the highest degree fallacious. We feel assured that very considerable allowance indeed must be made for errors and imperfections in the returns of the ages, and it is a question whether these may not prove so great with respect to one leading division of the population, as entirely to vitiate any deductions attempted to be derived therefrom. Many of the poorer classes who have attained the middle term of life, are altogether unable to give the information required; others, especially among the female portion of the population, will have attempted, from various motives, to evade a strict compliance with the requirements of the Act. In the middle and higher orders, the inquiry is in itself considered as an impertinence; among certain of the working classes it might act as a positive injury, while the partial discretion allowed by the explanatory notice on the registration papers, instead of circumscribing the limits of error, has tended to encourage further deviation from accuracy. We have heard it advanced, in reply to the objection which so many entertain to state their age, that it is unnecessary to be particular, that the notice does not require it, and that persons are therefore left at liberty to enter the ages of five, ten, or fifteen years below its actual amount. In making these remarks, we have not merely in view the disinclination which the greater number of females, and it may be added, not a few of the other sex, have to reveal their age, though we know not why this

harmless prejudice, if prejudice it be, should have been so summarily interfered with, but we allude more particularly to the direct injury to many among them, from too curious a scrutiny into these matters. The age of the whole class of domestic servants, for instance, forms a part of their character. It is thought to afford some clue as to their capability of discharging the duties of the situations for which they apply, and their general fitness for places of trust on the one hand, or requiring strength and activity on the other. The applicants for such situations are rarely accurate in the statement of their age, and very generally represent themselves as younger, or, when steadiness is required, as older, than they really are.

The question here, be it remembered, is not the morality of the practice, but whether the practice itself obtains, and the influence which it is likely to exercise in vitiating any conclusions to be drawn from the returns. Errors of this description, also, unlike many of those which arise from other causes, have little or no tendency to correct themselves; and whether it be from dislike to the inquisitorial nature of the inquiry on the one hand, or from the fear of sustaining injury real or imaginary on the other, the errors, instead of being corrective of each other, will be mainly on the one side, that is, below the actual age. It would have been far better to have left this matter open to the discretion of the parties, simply stating that the object sought was a great public good, and requesting the information from all those who might be able and willing to give it. As it is, by making the return compulsory, violence is done to the feelings of a very large proportion of the population; the point is one upon which more or less concealment has always been resorted to, and very generally been deemed allowable, and the returns must be expected to be in a corresponding degree inaccurate. The registration of the age obtained from a return made voluntarily, though of course not of equal extent or universality, might, we believe, as far as it went, have been relied upon; and although it would not professedly have contained the actual ages of the whole population, would have afforded data from which these might have been computed with far greater accuracy than from returns obtained under the compulsory system adopted.

No possible limit, likely to be beneficial for statistical purposes, can be assigned to the amount of error, and there can be little doubt but that in the whole middle period of life, from the age of twenty to that of fifty, of the female population, the returns will be utterly unworthy of dependence. We are acquainted with an instance, where

the nominal age of a *married* lady remained stationary at the same point, the actual ages of her family at the same time increasing, until at length she was understood to be only six years older than her eldest son, and after his death, which occurred about this period, the second son subsequently attained to a similar approximation to the age of his youthful parent. Many are the examples which might be adduced of individuals who in early life were accustomed to look upon each other in the light of playmates and cotemporaries, subsequently regarding those among them who carry their age more legibly imprinted, and especially such as belong to the male sex, with somewhat of a reverential consideration; while, on the other hand, these unfortunates enjoy the corresponding advantage of being promoted to terms of equality with other respectable persons, who, though of a different sex, might at one time have lavished upon them caresses *ad libitum*, without incurring any very grievous charge of impropriety. It is a pleasant thing to find ourselves to be thus early promoted to the privileges of the generation in advance, since we cannot but connect it in contemplation with a prospective enjoyment of comfortable corners, cushioned seats, and other appurtenances appropriated to those of extreme age, long before we should be entitled to claim them as our indisputable right. We have already, albeit not yet in possession of the hoary head which challenges the reverential deference of the youthful and gay, been honoured with the appellation of old by those whose register of baptism would show a near approach to our own, although the registry just taken will probably establish a difference sufficiently marked to justify the distinction implied. But it is not always to such motives as these that concealment or misrepresentation of the age is to be attributed, neither is the practice confined to the middle period of life. The sickly, the infirm, and the aged, are ever ready to deceive themselves, and consequently others, on this point, and thus to raise up an ideal barrier of security against the approaches of the destroying angel.

The churchyard dialogue between old David and the sexton, in Master Humphrey's Clock, strongly portrays the influence of this feeling, although the author has given the self-deception another direction.

"I have been thinking, Davy," replied the sexton, "that she," he pointed to the grave, "must have been a deal older than you or me."

"Seventy-nine," answered the old man, with a sorrowful shake of the head. "I tell you that I saw it."

"Saw it?" replied the sexton; "ay, but,

Davy, women don't always tell the truth about their age."

"That's true, indeed," said the other old man, with a sudden sparkle in his eye. "She might have been older."

"I'm sure she must have been. Why, only think how old she looked. You and I seemed but boys to her."

"She did look old," rejoined David. "You're right. She did look old."

"Call to mind how old she looked for many a long, long year, and say if she could be but seventy-nine at last—only our age," said the sexton.

"Five years older at the very least!" cried the other.

"Five!" retorted the sexton. "Ten. Good eighty-nine. I call to mind the time her daughter died. She was eighty-nine if she was a day, and tries to pass upon us now for ten years younger. Oh human vanity!"

In many of the more retired districts of the country, too, where the simple habits, together with some remnants of the superstitions of a receding period, still linger, the once popular belief, that to tell the age is unlucky, and quickly followed by the death of the person who commits the indiscretion, yet remains. With such facts as these before us,—and he is little accustomed to mingle with his fellows who is not prepared to view them as of very general application,—how can even an approximation to correctness be expected in the returns? Either the truth will not be told, and no good will result, or a very serious and, as we think, unjustifiable violence is done to the feelings of those who, from whatever cause, are unwilling to make the disclosure of what they have been in the habit, for years, of studiously concealing. The attempt, however, has been made, and it only remains, therefore, for the registrar-general to extract from the returns the best information which they are capable of affording.

The application of the same ingenuity and acuteness to these official papers as have hitherto proved so fertile in deducing valuable facts from the registration of births, marriages, and deaths, may possibly prove effective in devising some check upon the errors, some method of elimination, whereby the amount of confidence to be placed in this part of the returns may be ascertained, and the maximum addition to be made to each period of life for either sex ascertained. Whether this can be done at all, or whether the corrections to be made will come within such limits as to admit of practical application to purposes of utility, is very questionable. The attempt will be made, we doubt not; but we trust the fullest details of the

methods employed will be given, and the closest scrutiny compatible with the subject exercised, in the rejection of whatever is of suspicious or doubtful authority. In statistical deductions, error in the data is at all times to be avoided with more than common care; and it will be better to reject at once every dubious or imperfect return, than to run the risk of unwarranted and unsound conclusions. To found correct reasoning upon false data is manifestly but an insane procedure. It is the very test, indeed, which has been applied to the aberrations of a disordered mind, and was, at one time, received as a definition of one of the forms of mania. It is to be hoped that those who are to have the drawing up of the population returns will bear this in mind, and not waste their ingenuity in giving authority and currency to what, at best, must, we fear, be very far removed from even an approximation to the truth.

The state of parliamentary business, and the subjects of more general interest which now occupy the thoughts of public men, render every attempt at gaining due attention and consideration for questions of medical polity for the present nugatory. But though the times are unfavourable for the immediate consideration and final settlement of these questions, it behoves us not to lose sight of the advantages which the present crisis gives of providing for the future arrangement of the affairs of the Medical Profession. The approaching dissolution of parliament will afford an opportunity of urging the claims of medical men on the attention of candidates, while the divided state of party politics, by rendering each vote of consequence, necessarily adds weight to the suggestions of every voter. We are not desirous, with some of our friends, that the medical practitioner, in his zeal for the interests of his class, should forget that he has duties of a higher and more general description to perform in the approaching election; but we think that, without attempting to convert the representative into the delegate, he may and ought to take occasion strongly to impress upon any candidate who may solicit his support, the necessity of giving every consideration to these matters, whenever they may again come before parliament.

The member of the House of Commons, though not the delegate, professes to be the representative of his constituents, and is bound to attend in his place whenever the interests of any one of them are under consideration. We think, therefore, that every medical practitioner, who intends voting in the ensuing elections, should require of the candidate for whom he may exercise the privilege, that he shall be ready to give his best attention to the

subjects of medical qualification, the constitution of the medical profession, the relief of the sick poor, and such others of public utility as bear upon the rights and privileges of the practitioner; and whatever his opinions may be with respect to any individual measure, that he shall not attempt to get rid of such measure by absenting himself from the discussion, or by quitting the House whenever it is introduced. The general principles of a candidate having been ascertained, he is sent to parliament, if elected, not to vote absolutely according to the views of any individual elector, but to weigh well whatever comes before him, and to decide, according to the best of his judgment, on circumstances as they arise. If he should see reason to change his views altogether, so that his general principles are no longer those upon which he solicited and obtained the votes of his constituents, he is bound, both in honour and in common honesty, to vacate his seat, but beyond this he neither is of right, nor for the public advantage ought to be fettered. A member of the House of Commons sits in parliament in a twofold capacity; first as a representative of the individual place for which he is returned, and, consequently, more or less of a class interest; and, secondly, in the higher and more important character of a state legislator. In his performance of the duties of the one office, he is not to overlook the other; and though he ought, on all general questions, to regard the welfare of the state as paramount, it is especially incumbent on him to be present whenever the interests of his constituents come under consideration, and, as far as the public good will admit, to do all in his power to promote those of the class, or locality, which he is there to represent.

Medical practitioners should endeavour to avail themselves of these advantages, and require of their representatives to support the interests of their body equally with those of others of the constituency. They have a right to expect that whenever medical subjects are discussed, attention commensurate with their importance should be given to them. But the object cannot be attained, and the various questions connected with it satisfactorily settled, without the diffusing of information upon the subject among the members of the legislature generally; and it becomes the duty, therefore, of the individual practitioner, in giving his support to the candidate or candidates of his choice, to make them aware of his requirements, and of the leading principles upon which these are founded. It is not necessary here to point these out; but it would be well if the Provincial, the Northern, the British, or some other of the Medical Associations, were to draw up and circulate

a brief summary of what is required, embodying simply a statement of existing evils and abuses, and pointing out the principles on which they might be remedied. Such a statement might be placed in the hands of the candidates, and their attention drawn to it, as affording a guide by which the views of the Medical Profession might be ascertained, and the principles upon which the changes contemplated as necessary should be based. Let medical practitioners, as a body, exert themselves in enlightening the minds of those who are to become members of the legislature; let them represent, in as strong a light as they can, the anomalous and unsatisfactory state of the Medical Profession which now exists, and upon public grounds press for that attention which they have a right to expect and require, and we shall not again hear of the disgraceful dispersion of a full house, and the counting out of those whom decency had induced to remain, when the subject shall next be brought forward.

Some efforts indeed, have already been made by active medical reformers. Mr. Simpson of Guilford-street has, we understand, addressed Sir Charles Napier on the subject, and received from that gallant officer an assurance, that if elected a member of the House of Commons, he will pay due attention to the question of medical reform, and lend his aid towards the correction of existing abuses.

In Ireland, a noble spirit has been aroused, which may lead to the happiest results. Preparations, we believe, are being made for the return of a medical gentleman, who will honestly represent the profession, and devote his talents to the advancement of our true interests.

We shall then have a member of the House on whom we can rely in the hour of need; one who will not disgrace his profession, or disgust his political friends by becoming the rejected lick-spittle of Sir Robert Peel.

REVIEWS.

A Treatise on the Medicinal Leech, &c. By JOHN HUDSON and SON. Simpkin and Co., London, 1841. 8vo. pp. 106.

THIS pamphlet contains a great deal of interesting and useful information relative to the history, diseases, and management of the medicinal leech. Some years back, the market was chiefly supplied by the English leech, which was obtained in considerable quantities from the marshes of Lincolnshire and other parts of England; but the native species is now nearly extinct, and the greater portion of the leeches imported into this

country are procured from Spain, France, or through Hambro' from the Russian empire, and the central parts of Asia. Partly from the great demand for leeches which has existed for many years, and partly from the draining and cultivation of the localities which they inhabit, leeches are daily becoming more scarce; hence the great numbers of the bastard species to be found in the market, and the disappointment thereby occasioned. The mode of catching the leech has also much influence on its subsequent utility. When taken by the hand or by nets, they will be found active on application; but, in order to avoid these inconveniences, and also the losses frequently occasioned by the consignment of unhealthy leeches, (which die in great numbers during the voyage,) Messrs. Hudson have appointed a resident agent in Hambro', who selects the genuine gray leech for them, and rejects all that are not in good condition. In the selection of the genuine leech, *colour* is little to be depended on; Messrs. Hudson prefer the Hambro' gray, and assert that unless a leech be marked, more or less, with yellow-brown spots, or with variegated lines running the whole length of the back, it will be found unavailing for medicinal purposes.

The *diseases* to which leeches are subject seem to be numerous, but the dealer in this country has only to concern himself with those which occur after their importation into this country. A leech is known to be in a healthy state if, on being compressed in the hand, it curl up into a hard lump; and unhealthy—if, after compression, it remains in a flabby state; but, upon more minute observation, we may find several external appearances which also indicate the presence of disease.

The authors describe the diseases of leeches under four heads:—

"The first is the '*pustula ulcerata*.' The external surface of the leech is covered with small ulcers, from the lower extremities to the middle of the body, the parts affected being in a state of vital inaction, and the upper but partially animate; without minute observation, existing disease would not be discerned, as the ulcers assimilate so much to the pimples which cover the back of the leech.

"2. The '*morbis vorans*' is, when a sort of universal hostility reigns amongst the leeches—each making an attack upon its fellow; the mortality is very great, as by rabid infection, arising from the incisions they make, and the impregnated fluid.

"3. '*Convulsio*' is the most insidious disease, and one over which we have the least control; the leech is taken as it were in a moment, shoots out at its extreme elongation, and remains after death in the position of a dried stick.

"4. But '*consumptio vulgaris*,' the disease most common amongst them, is, when the whole body puts on a flaccid appearance, with the exception of the lips, which remain hard and swollen,

of a purple cast, and frequently tinged with blood. This is no less pernicious in its tendency, and fatal in its effects if neglected, than the others we have enumerated."

The mortality occasioned by these different affections is sometimes very great; the authors have received only 5,000 healthy leeches in a consignment of 60,000, and occasionally the whole of those consigned have perished during the voyage.

Whenever any disease prevails amongst the leeches, (and it is always of an epidemic nature,) the author recommends us to separate the dead from the suffering and healthy, and place the latter in separate earthen jars; to about fifty leeches we should give three quarts of rain water of about a month's standing, of a medium temperature, adding to it about two pints of charcoal: after three days, the water should be changed, but the charcoal may remain.

Another useful mode is to place the sickly leeches, particularly those suffering under "*pustula ulcerata*," in a long canvas bag, of about three by fourteen inches, and hang it up in a dry place; the bag should be always of this proportion and full, and suspended by the two ends, but supported by a flat strip of wood, so that the whole weight may not be in the middle of the bag; every few days the mucus which collects should be cleared away.

A German merchant assured the authors that he has emptied a considerable number of sickly leeches into a hole in the earth, over which he placed the sod closely; and that the smell of the earth was so salutary, as to restore them in the course of a few days.

The most efficacious method, however, is that employed by the authors, of placing the leeches in peculiar reservoirs, constructed in a manner suited to their economy; or when these reservoirs do not exist, they should be kept in common brown earthen jars, containing pure spring or rain water, (three quarts to one hundred leeches;) the water should be frequently changed.

The remaining chapters of this pamphlet contain a minute description of the anatomy of the leech, illustrated by several plates; an interesting account of the method adopted by the leech-catchers of France for obtaining their prey; and finally, some observations by Dr. Horner, on the method of applying leeches, and the diseases in which they are useful.

Memoir on a new kind of Medicated Pad Truss, for the Radical Cure of Hernia. By JALADE LAFOND, M.D. Baillière, London, 1841. 8vo. pp. 42.

OUR readers are well aware that, from time im-

memorial, various attempts have been made to obtain a radical cure of hernia. It is not our intention to enter on any examination of those various methods, many of which have failed, but to describe briefly the one which Dr. Lafond seems to have employed at Paris for many years with considerable success, and which is described at length in the pamphlet now before us.

In order to obtain the radical cure of hernia by means of a truss, we must fulfil two indications; first, the pad must be so constructed as to obliterate, by its pressure, the opening through which the hernia passes; and, secondly, this obliteration must be rendered *permanent*, otherwise the hernia will return as soon as the truss is removed.

"As regards the first indication," says M. Lafond, "I had only to conform to the anatomical condition of the hernia, a disposition varying much, as it is known, not only in the different regions, but also according to the size, kind, and date of the hernia in the same region. Hence, the great variety of pads with which we are obliged to be provided, to answer the different cases that occur. I have succeeded, however, in collecting them into a small number of types, and which experience has taught me to recognize at first sight; so that every hernia bears in a manner the character of its respective species, and consequently indicates the pad which suits it best.

"As to the second point; namely, to give to the pad the faculty of producing dynamic or vital effects, I have made it hollow, without diminishing its solidity or form, and organized a reservoir in the inner part capable of receiving medicated substances. Adapted with prepared elastic gum, and pierced with holes to give free exit to these medicaments, it is fitted to springs of different strength according to circumstances. The efficacy of the treatment depends entirely on the proper construction of those pads, and the medicaments they contain, which are brought in contact with the skin, it being well understood that the reduction of the hernia had been previously complete and permanent.

"The action of the medicaments should be suitably directed; at first moderate, and then graduated so as to provoke irritation of the skin and subjacent parts. This irritation ought never to extend to severe inflammation; it ought not even to hinder the patient from walking or attending to his business. It is hardly necessary to say that the activity of the medicaments should be subordinate to the different circumstances of age, sex, individual irritability, &c."

The basis of the medicaments which M. Lafond uses for the purpose of exciting adhesive inflammation in the canal or orifice through which the hernia has passed, is the ioduret of iron. He relates several cases in support of the efficacy of his practice. We are not prepared to give any opinion on the merits of M. Lafond's method, because we have never seen it applied on the living subject; but it has been the subject of a very favourable report from a French committee, and

we have every reason to know that the author is free from the slightest taint of charlatanism.

We would recommend, at least, a trial of M. Lafond's trusses before they be condemned.

STATE OF THE PUBLIC HEALTH IN BIRMINGHAM.

A very interesting and valuable report "On the State of the Public Health in the Borough of Birmingham" has recently been published by a committee of physicians and surgeons, whose inquiries have extended not only to the prevalence and causes of disease amongst the great bulk of our population, but also to the suggestion of measures for its suppression, and for the general improvement of the condition of the working classes.

In order to form a correct opinion as to the relative frequency and mortality of the most prevailing diseases in Birmingham, the committee referred only to documents upon the accuracy of which they could with entire confidence rely. These documents were furnished by the reports of Mr. Baynham and Mr. Ryland, and also by the report of the late Mr. Parsons. Mr. Baynham's report contains the result of his private, parochial, and dispensary practice for five years, commencing with 1831; the report of Mr. Ryland contained the result of his parochial practice for five years, commencing with 1835; and the report of Mr. Parsons contained the result of his practice, also for five years, commencing with 1832. The total number of cases included in these reports is 45,951, and the number of deaths which occurred is 2,092, the deaths being in the proportion of 4 and 9-16ths per cent. From a tabular classification of the cases enumerated, it appears that the number of persons affected with pulmonary diseases amounted to 7,220, being rather less than one-sixth of the whole number of patients, whilst the deaths from this class of disease (678) form one-third of the whole number of deaths. The class of diseases next in frequency is that comprising the disorders of the alimentary canal; but, although the number is great, the mortality is very trifling. The fever cases form about seven per cent. of the whole of the cases, and the deaths from fever are eight per cent. of the whole number of deaths. The truly contagious eruptive fevers amount to five per cent. of the whole number of cases, and the mortality from these fevers is more than fourteen per cent. of the whole mortality. The deaths from small-pox were, in almost every instance, those of children under ten years of age. In noticing the small number of cases of fever furnished by these reports, and the extraordinary prevalence, on the other hand, of pulmonary diseases, the latter being not only twice as numerous, but nearly twice as fatal, as fevers in Birmingham, the committee refer to the second report of the Registrar-General, in which it appears that in Birmingham more than nine persons die of pulmonary diseases to that of fever; whilst in London the proportion of registered deaths from pulmonary diseases is only 4; in Liverpool, 4½; in Manchester, rather more than 3½; and in Leeds, nearly 5 to 1 from fever. It also appears from the same report, while the proportion of deaths from fever to the total number of deaths is, in London, 1 in 13; in Liverpool, 1

in 13; in Manchester, 1 in 12½; in Leeds, 1 in 17½; that in Birmingham the proportion is 1 in 27. Contagious fever, extending from house to house, ravaging whole courts and streets, and abiding almost constantly in certain localities, as it is described to do in some other large towns, is a condition so rare, that it may be said to be almost unknown to the inhabitants of this borough. The poor are certainly more frequently the subject of its attacks than those in a better condition of life; but the committee were unable to discover that any particular occupations carried on in Birmingham predisposed to its accession, or to promote its fatality. Amongst the causes which operated to render fever comparatively so rare and so mild in Birmingham, the committee notice the elevated situation of the town; its excellent natural drainage, and its abundant supply of water; the entire absence of cellars used as dwellings: the circumstance of almost every family having a separate house; and, lastly, the amount of wages received by the working classes, which are generally adequate to procure the necessaries of life. The comparative exemption of Birmingham from the incursions of contagious disease was remarkably evinced during the prevalence of the Asiatic cholera in this country. In no town in the kingdom, in proportion to the amount of its population, were the ravages of the cholera more terrible than at Bilston, which is situated only ten miles from Birmingham. Although the intercourse between the two places was uninterrupted, only twenty-four cases of cholera occurred in Birmingham during the year, and in the majority of these cases it could be distinctly traced that the disease was imported, the patients having been affected with the early symptoms of cholera before they arrived in the town. The ratio of infant mortality in Birmingham is very considerable. It greatly exceeds that of the metropolis, and of the agricultural districts; but it is not so high as in some of the large provincial towns. According to the second report of the Registrar-General, it is proportionally greatest in Manchester, next in Leeds, then in Liverpool, and fourthly in Birmingham; in each of which places more than one half of the total number of deaths registered are those of children who had not attained their fifth year; whilst it is remarkable, that in the metropolis the number of registered deaths of children under five years of age is only in the proportion of one to two and a half of the total number of deaths. The want of sufficient and frequent nutriment and proper care, caused by the absence of mothers in their employments in the workshops may, perhaps, have some share in causing this high rate of infant mortality in the large manufacturing towns. A great number of accidents and deaths from severe burns and scalds have arisen in Birmingham from the children having been left without proper superintendence; and many are caused by the custom of wearing loose linen pinafores, which are drawn with the current of air into the fire. In a town like Birmingham, where so great a variety of trades and manufactures are carried on, the committee have found much difficulty in ascertaining the influence of various occupations on the health of those engaged in them; but after a careful examination of the several processes of manufacture, the workshops of the artisans, the age at which they begin to labour, the influence of occupation

in developing hereditary or constitutional disease, the habits of the workmen in relation to sobriety and cleanliness, the amount of earnings, &c., the committee deduce the following conclusions:—

“1st.—That only a few of the processes employed in the manufactories exert any specific or ascertained baneful effect upon the animal economy. The manufacture of white lead, and some of the nearly obsolete modes of gilding, produce injurious effects upon the nerves and digestive organs. Dry grinding in all its departments, especially that denominated pointing, as the pointing of needles, is destructive to health and life by its effects upon the respiratory organs, as the state of the needle manufacturers at Redditch and other places painfully exemplifies. Also the dusty employments of pearl button making and of the brass foundry appear to produce detrimental effects upon the air-passages, and the latter perhaps induces affections of the stomach. The process of lacquering metals we believe to be very unhealthy; this proceeding is carried on in hot rooms, the atmosphere of which is extremely impure, generally by young females, great numbers of whom become the victims of consumption. With these exceptions, and the accidents necessarily consequent upon constant work amongst all kinds of machinery, injurious consequences to health are not to be traced to the occupations of the artisan in this town.

“2ndly.—More evil consequences to health perhaps arise from the workshops, than from the processes carried on in them. These are generally too small, frequently damp and badly glazed, but oftener imperfectly ventilated. The ground floor or cellar where the operation of stamping is performed, is usually confined and damp. Some of the large modern manufactories are peculiarly well suited to the purposes for which they have been erected, but for the most part the shopping is in the unceiled roofs of ill-constructed buildings, and is suffocatingly hot in summer, and very cold in winter.

“3rdly.—Except in pin manufactories, and a few others, it is by no means a common occurrence for children under ten years of age to be employed in manufacturing processes in the workshops. When they are made to labour at so early an age, the development of the frame appears to be impeded; such individuals, when arrived at maturity, are generally short in stature, and their muscles unequally evolved.

“4thly.—In the selection of a trade for the young of both sexes, disregard is too frequently paid to hereditary or peculiar predisposition to disease. Inattention to this circumstance oftentimes casts unmerited disrepute upon comparatively harmless occupations.

“Diseases of the skin do not appear to be peculiarly frequent amongst the artisans of this town, nor are we able to trace any injurious effects upon their health to the coal smoke in which they live, nor to the soot or coal dust with which the clothes and bodies of many of the working people, both of this town and the neighbouring mining district of Staffordshire, are almost constantly covered.

“5thly.—It cannot be doubted that whilst the arts and manufactures of the place prove in some instances injurious to health, and in a few, possibly destructive to life; these evil consequences, as well as hereditary predisposition to disease, are promoted by intemperance, nor that intemperance

is an infinitely more frequent cause of disease and death amongst the artisans, than all the various employments of all the manufactories combined.

"6thly.—During the periods of stagnation of trade, disease is most general, or at least at such times there is a much greater application for medical relief; and it is certain that a sufficient quantity of food, of good quality, will enable persons to carry on employments with impunity, which would prove injurious and perhaps fatal to the ill-nourished."—*Birmingham Journal*.

REMARKS

ON

SOME LATE OBSERVATIONS CONCERNING THE BLOOD CORPUSCLES.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—In the late volume of the "Transactions of the Provincial Medical and Surgical Association," there are some material errors, to which I beg to direct your attention, respecting the history of the blood corpuscles. I venture to hope that you will correct these mistatements, as you have always appreciated the interest belonging to the physiology of the vital fluid, and have shown a most praiseworthy spirit of impartiality in awarding justice to the pretensions of different observers, in the various departments of anatomical science. I will first submit to you an extract from the work in question, and then subjoin a few brief remarks, carefully avoiding any statement not supported by a voucher, to which reference may easily be made.

"Professor Owen found the blood corpuscles of the elephant twice as large as the ordinary corpuscles of human blood; hence they are larger than those of any mammiferous animal hitherto described.

"Those of the very small animal, the armadillo, rather exceeded those of the rhinoceros. In the dromedary, he noticed the elliptical form described by Mandl, but amongst them were a few of a circular form. This form has also been observed by Gulliver in the *auchenia* species. The corpuscles of the giraffe had the circular form of the mammiferous ruminants generally, but the average size was nearly one-third smaller than those of the human subject. The result of the examination of this animal, which is the largest of the ruminantia tribe, Mr. Owen considers interesting, inasmuch as it indicates that the size of the blood particles relates to the condition of the *whole organization* rather than to the *bulk* of the species. It would appear from the examination of the blood discs in the goat, sheep, and ox, that their unusually small size is associated with the peculiarities of the ruminating structure. The elliptical form of the corpuscles also in the llama and vicugna, as well as in the dromedary, confirms the fact that the camel tribe of ruminants present, among other peculiarities of organization, the singular exception of the form of the blood corpuscles, which has hitherto been observed only in the oviparous vertebrata. The blood of the tiger, the typical felis, had not been previously examined, and Mr. Owen agrees

with Müller and Wagner, that the corpuscles of the strictly carnivorous are intermediate between those of the omnivorous species, and those of the strictly herbivorous, being smaller than those of man and the quadrumana, their average size being $\frac{1}{16}$ of an inch in diameter. The blood corpuscles of the chevrotain, the smallest of the ruminantia, presented the smallest hitherto observed in the vertebrate animals, being $\frac{1}{160}$ of an inch." Vol. ix. p. 190.

1. With regard to the blood corpuscles of the elephant, the fact of the large size of the blood discs of this animal was long since announced by Mandl, who gave an explicit measurement of these particles; (*Anatomie Microscopique*, 1838, liv. i. p. 17;) but Mr. Owen was either unacquainted with this circumstance, or did not choose to notice it. A copy of Mandl's work has long been in the library of the college at which Mr. Owen holds his professorship.

2. It is difficult to understand the meaning of the author with respect to the corpuscles of the camel tribe. Does he mean to say that Mr. Gulliver also discovered the *circular* form in the blood corpuscles of these animals? The fact is simple enough, for M. Mandl discovered the *elliptical* form of the blood discs of the dromedary and paco, (*Anatom. Micros.* liv. i. p. 17,) and Mr. Gulliver subsequently observed that the discs of the vicugna and llama had the same form. (*Trans. Med. Chir. Soc.* vol. xxiii., paper read Nov. 26, 1839, and *Dublin Medical Press*, Nov. 27, 1839.) Now Mr. Owen's observations on the blood of the vicugna were published in the "*Medical Gazette*," Dec. 20, 1839, and he does not mention either the llama or paco.

3. A very clear measurement is given of the blood discs of the giraffe in the work by Mandl, already cited.

4. As to the blood corpuscles of the chevrotain being "the smallest hitherto observed in the vertebrate animals," Mr. Gulliver published this fact on the 26th and 27th of November, 1839, in the works mentioned above, and the college professor's account of the blood discs of this animal appeared in the "*Medical Gazette*," Dec. 20, 1839. That he could not be ignorant of Mr. Gulliver's observations on the subject, may be supposed from the fact that they were noticed in the *Philosophical Magazine*, Dec. 1, 1839, as well as in the *Magazine of Zoology and Natural History* of the same date; and both these works, as also those mentioned under paragraph 2, are regularly placed in the library of the College of Surgeons. It should be mentioned, however, that the college professor calls the animal in question "*The Chevrotain, Moschus Pigmæus*." Now, the name by which this animal is at present known in England, and by which I find it designated in the *Zoological Gardens*, is "*Napu Musk Deer, Tragulus Javanicus, Raffles*." It is, in fact, the *Moschus Javanicus* of Pallas. It is unnecessary to make any further observation on this sorry trick of Professor Owen.

In conclusion, I have only to remark, that I think you will agree with me that we have a right to expect common accuracy from gentlemen professing to give retrospective accounts of the progress of science. It may, however, be fairly urged in excuse for the writers in question, that the necessary sources of information might not be easily

accessible to them; but surely, where the claims of Professor Owen were to be spoken of, it might have been learned from the Medical Gazette that there was unfortunately some reason not to trust implicitly to the scientific statements of the college professor. I am, gentlemen, your obedient servant,

July, 1841. A GENERAL PRACTITIONER.

FOREIGN MEDICAL LITERATURE.

PREVENTION OF TUBERCLES.

M. COSTER has submitted several animals to various experiments, for the purpose of determining how far the formation of tubercles may be prevented by diet, but principally by the administration of medicines with their food. Some rabbits were fed in the open air, and in the usual manner; another set were shut up in narrow boxes, in a cold moist place, and deprived of light, air, &c.; they were fed on potatoes, turnips, &c. A third set were placed in the same circumstances as the latter, and nourished in the same way, but they were given every second day some bread containing nine grains of the carbonate of iron. The animals were killed after the lapse of five months. The first set were healthy; the second set had tubercles in the lungs or other parts of the body; while the third set remained completely free from any trace of tubercle. M. Coster assures us that he has performed similar experiments on dogs, chickens, &c., and invariably found that the bread containing iron prevented the formation of tubercles.

While on this subject, we may remark that chalybeate bread (i. e. bread containing a salt of iron) has been administered in one of the largest hospitals in Paris to chlorotic patients, and with the best effects. Last year seven females were treated in this way; five of them laboured under a very severe form of chlorosis, and were cured within a month, the others left the hospital well in a fortnight. From four to five grains of the lactate of iron may be mixed with every three and a half ounces of bread, without giving it an unpleasant taste or injuring its quality. We think that this pleasant and efficacious method of giving iron might be adopted with advantage in England.

The following are some of the cases in which the chalybeate bread was administered.

Eliza H—, 17 years of age, was admitted into the Hôtel-Dieu on the 10th of November, 1840. She had not menstruated since the month of March last, and presents all the appearance of chlorosis in a very severe degree. On the 20th she commenced taking (daily) two rools, each containing four grains of the lactate of iron. The health of the patient rapidly improved, and on the 6th of December her catamenia appeared.

Eugenie Senidre, 39 years of age, unmarried, was admitted into the hospital on the 17th of December, 1840. She is so feeble as to be incapable of any kind of work; the skin is excessively pallid; her legs swell when she stands for any length of time; she suffers much from palpitation of the heart and shortness of breath, especially when she goes up stairs; the pulsations of the heart are tumultuous, and the first sound is accompanied by a *bruit de raie*, which extends along the

aorta; the urine is quite pale. This patient has never enjoyed good health; about three years ago she was affected in a similar manner, and passed a month in the Hospital of La Charité, where she was treated for a disease of the heart, and took a considerable quantity of digitalis; she afterwards took a course of the sub-carbonate of iron, but without any benefit. The quantity of the catamenial discharge gradually diminished, and it was completely suppressed since the month of March last.

From the 20th of December to the 22nd of February, 1841, when she left the hospital, the patient took, daily, two rools containing the lactate of iron, and was allowed as much nourishment as she chose to eat. During the first fortnight little benefit was obtained; but the cheeks gradually assumed a healthy colour, her strength returned, and the abnormal sounds of the heart and carotid arteries became less audible. Towards the middle of February the patient presented the appearance of perfect health; the *bruit* had completely disappeared, and there were some symptoms which indicated the approach of a menstrual period, but the catamenia were not established.

The following case is still more striking.

E. Pommier, a deaf and dumb girl, now 18 years of age, began to menstruate at the age of 13; at the age of 16, without any apparent cause, she fell into a state of the most complete chlorosis. The menses always appeared at the regular periods, but the discharge was pale, and lasted for a few hours only. The subcarbonate of iron, in doses of from 12 to 16 grains a day, was administered, and afterwards the chalybeate chocolat, but without effect.

The child was now sent to the country, where she remained for four months, taking the chocolat, and enjoying the best air, &c.; she returned to the institution in October a little improved. The tongue and lips were less pale, but the *bruit de souffle* and the shortness of breath continued. She was now ordered to take a couple of the rools every day; in twenty-five days the patient's state was much improved, and in January, 1841, she was completely restored to health. The menstrual discharge was now of a healthy colour, and continued regularly during four days.—*Bul. de l'Acad. No. XIII.*

THE PROTO-IODURET OF IRON, AND ITS USE IN PULMONARY CONSUMPTION.

M. Dupasquier, physician of the Hôtel-Dieu of Lyons, has just published a highly interesting memoir on the best mode of preparing the proto ioduret of iron, and on its efficacy in pulmonary consumption. From the well-known analogy between phthisis and scrofula, M. Dupasquier first tried the effects of pure iodine, but found no benefit from the remedy when administered in this form. He then thought that a combination of iodine with iron might be advantageous; but as the ioduret of iron which is found in the chemists' shops always contains a certain quantity of free iodine, he endeavoured to obtain a colourless solution of the ioduret, in the manner presently to be described. It was with this preparation that his experiments were made, and the effects obtained are said to be of the most encouraging nature. The results of M. Dupasquier's practice have been

known at Lyons for the last six years, and several of the most respectable practitioners have employed it with equal success. The author, although naturally inclined to speak well of his own method, expresses himself with a certain degree of reserve.

"I would not (says M. D.) have it understood that I consider this new remedy as a specific in all cases of pulmonary consumption. I merely propose it as one infinitely more useful than any other which has hitherto been employed. Sometimes it fails altogether; in other cases it gives great relief, and mitigates the sufferings of the patient up to the period of death; it frequently produces a temporary cure, and finally, in a few cases, (*few*, as we can readily conceive,) it has effected the complete and permanent healing of cavernous excavations detected by auscultation, and in persons reduced to the last degree of emaciation."

The present memoir is addressed rather to chemists than to medical men, as the author intends publishing his cases in full; his chief desire, for the present, being to make known the preparation of iodine which he employs. The following is the basis of all the formulæ.

Solution.

Iodine, 10 scruples;
Iron filings, 20 scruples;
Distilled water, 80 scruples.

Introduce the whole into a small matrass, and place the latter for eight or ten minutes in water, heated to 192 or 208 deg. Fah., but not boiling. Agitate the mixture, and as the combination goes on, the fluid becomes of a brown-red colour, but gradually gets quite clear, and this shows that the combination of the iodine with the iron has been completely effected. Should the solution remain reddish, yellow, or green, it must be filtered; then again mixed, and heat applied as before, until it becomes perfectly clear. This preparation merely serves as a basis for others, because it will not keep for any length of time; the proto-ioduret of iron is rapidly decomposed even in a bottle hermetically sealed: the solution must, therefore, be converted at once into one of the following preparations.

Syrup.

Solution of the proto-ioduret of iron, 4 scruples;
Syrup of gum, 200 scruples;
Syrup of orange flowers, 50 scruples.
If well made, this syrup will keep for a month. Each tea-spoonful contains four drops of the solution.

Pills.

Iodine, 8 scruples;
Iron filings, 16 scruples;
Distilled water, 25 scruples.

Prepare in the same way as the solution; then filter it, and pour the solution into an iron spoon; add twenty scruples of pure honey, and evaporate quickly until it assume the consistence of a syrup; then gradually add 12 scruples of powdered gum, mixing with a spatula. We thus obtain a mass, which may be divided into 200 pills, each containing about four drops of the solution; they will keep for a long time without alteration. Whatever preparation may be employed, the dose should be equivalent, at first, to 15 drops of the solution daily; but it may be gradually increased to 120 drops. M. Dupasquier prescribes, at the same

time, a nutritious diet, composed chiefly of roast beef and mutton.—*Jour. de Med., May, 1841.*

[We have published the preceding analysis of M. Dupasquier's paper, for the purpose of making known the preparations which he employs in the treatment of pulmonary consumption. M. Dupasquier is one of the most distinguished hospital physicians in the south of France, and his character places him above the slightest suspicion of charlatanism.]

CASE IN WHICH AN OPERATION FOR ARTIFICIAL PUPIL WAS PERFORMED ON AN EYE PREVIOUSLY AFFECTED WITH STAPHYLOMA OF THE CORNEA.

By RICHARD MIDDLEMORE, Esq.

IN the sixth volume of the *Transactions** I related the case of James Shephard, who became my patient at the Eye Infirmary, after having left the Birmingham Hospital, into which he had been admitted in consequence of a severe accident which had seriously injured his face and eyes. When I first saw him, the right eye was entirely collapsed. More than half the lower portion of the left cornea was extremely opaque and prominently staphylo-matous, the pupil was almost entirely obliterated, and the iris extensively adherent to the upper margin of the staphyloma. The mode of treatment employed for the cure of the staphyloma consisted in the repeated tapping of the part by means of a fine iris-knife; it being evident that excision or any similar mode of cure would have unfitted the eye for the performance of an operation for artificial pupil, which presented the only chance of restoring to the patient any degree of vision. On the cure of the staphyloma, the patient, being still blind, was persuaded to go to the Bristol Asylum, where he was taught to make baskets. He remained there until June, 1839, when he returned to Birmingham, and called upon me, expressing a strong wish to have an operation performed. On this occasion he was led to my house by a little child, being unable to find his way, without assistance, about the streets of the town, in which he lived many years.

My experienced colleagues, Mr. Ledsam and Mr. Crompton, who examined the case with me, agreed that it was desirable to give the patient the chances of benefit an operation afforded.†

Operation.—August 6th, 1839. Present, Mr. Jones and Mr. Clarke.—Raising the upper lid without pressing upon the eye-ball, I made a small section of the cornea at its superior part, through which I introduced a fine iris hook, and very cautiously drew out a portion of iris, which, as I could not excise it with the curved scissors without a risk of touching the capsule or dislocating the lens, I left to be strangulated between the lips of the incision of the cornea. The iris bled a good deal after the operation; but by keeping the pa-

* Page 450.

† It will be borne in mind that more than one-half of the cornea, at its lower part, was densely opaque, the pupil nearly obliterated, the iris extensively adherent to the opaque cornea; but, from the slight glance of an exceedingly minute pupil which it was just possible to obtain, by looking downwards as the patient sat on a low seat, it was ascertained that the lens and its capsule were transparent.

tient quiet in bed, and by the adoption of various antiphlogistic measures, the effused blood was absorbed, acute inflammation was prevented, and the patient's vision so far restored that he has this day read to me, with tolerable ease, and without glasses, a portion of the former part of his case published in the sixth part of the *Transactions*. The pupil I have made has a smooth margin, being formed, not by excising a portion of iris, but by detaching its pupillary margin from the staphylomatous cornea, to which it was extensively adherent; it is of good size, being neither very large nor unusually small; it is somewhat oval in shape, and extends from the upper border of the staphyloma nearly to the corneal margin at its superior part where I made the incision.—*Transac. Prov. Med. and Surg. Assoc.*, vol. ix.

COURT OF QUEEN'S BENCH.

Tuesday, May 25, 1841.

THE SOCIETY OF APOTHECARIES v. GREENOUGH.

AN action was brought by the Apothecaries' Company against a person of the name of Greenough, for practising as an apothecary without a certificate. This action was tried at Liverpool before Mr. Baron Maule in 1839, when a verdict was found for the defendant. In a former term, Mr. Creswell obtained a rule nisi for a new trial, on the ground of misdirection of the judge, and the rule now came on for argument.

Mr. Justice Coleridge having read the judge's report,

Mr. Watson appeared on behalf of the defendant to show cause against the rule. The learned judge had told the jury that what was done by the defendant was an acting as an apothecary, unless the jury thought that he was acting as chemists and druggists acted at the time of the passing of the Apothecaries' Act; and that it was a question of fact for the jury to find what the practice of chemists and druggists had been at that period.

Lord Denman: Can you defend that ruling, Mr. Watson?

Mr. Watson: I apprehend, most decidedly, I can defend it, my lord.

Lord Denman: If he has acted as an apothecary, what would it have signified if he had acted as a chemist also?

Mr. Watson: Because the statute expressly provides for it in the 28th section.

Mr. Justice Coleridge: That is not to prejudice the trade of a chemist and druggist in preparing and dispensing drugs.

Mr. Watson: "Dispensing" is the very word used, both in the Apothecaries' Charter and this Act of Parliament. Apothecaries were persons who kept shops, and who dispensed medicines at the request of their patients.

Mr. Justice Coleridge: What operation do you say the Act of Parliament has, then?

Mr. Watson: It has this; it leaves the chemists and druggists to dispense medicines in any way that chemists and druggists had been in the habit of dispensing medicines before. According to the best opinion of all medical practitioners, the uniform opinion on the subject is this, that the Act of Parliament left chemists and druggists to deal with medicines as before; that is to say, either

to sell medicines over the counter, or, if they were bought, to send them to the patients.

Mr. Justice Coleridge: But not to go and visit a patient, and attend upon him?

Mr. Watson: There is no objection to their visiting, if they merely charge for their medicines. That is the very question that has been agitated with regard to physicians.

Mr. Justice Coleridge: One of the defendant's bills expressly charges for visits.

Mr. Watson proceeded to contend that a person who merely sells medicines—though he may visit, though he may prescribe, still if he does it merely as a chemist and druggist, and does not hold himself out as an apothecary, is not within the Act; that, under the 28th section of the Act, chemists and druggists were protected in doing whatever chemists and druggists had done before the passing of the Act, and that the judge was right in leaving it as a question of fact for the jury to say what the practice of chemists and druggists was before the passing of the Act; that the learned judge could not have taken upon himself to say that attending a patient, or prescribing for a patient, and making up the medicines, was practising as an apothecary, and not as a chemist and druggist.

Lord Denman: You say there was no evidence of what a chemist and druggist was before the passing of the Act? Does not the direction amount to this, that a chemist and druggist might act as an apothecary before the statute?

Mr. Watson: No, my lord; the learned judge's direction was this:—"Gentlemen, you are to tell me this—we want to know what the practice of a chemist and druggist was." The jury said, "May we ask for the distinction between a chemist and an apothecary?" upon which Mr. Baron Maule said, "Gentlemen, you must tell me that, and then I will tell you what the law is on the subject:" so that really, after all, it was a question of fact. The learned counsel then cited the case of the College of Physicians against Rose, Brown's "Parliamentary Cases," 78; and observed, that from the reign of Henry the Eighth down to the reign of Queen Anne, it was supposed that no one could prescribe any medicines but physicians.

Mr. Justice Coleridge: In 1815, when the Act passed, what distinction do you say there was between chemists and druggists and apothecaries?

Mr. Watson: I say there really was none substantially.

Mr. Justice Coleridge: If so, why then were not the chemists and druggists put under the same regulation as the apothecaries? I want you to tell me the distinction between them at the time of the passing of the act.

Mr. Watson: I say, my lord, that at that period the apothecary went and attended his patients from time to time, and that chemists and druggists did the same when they were asked to do so.

Mr. Justice Coleridge: Then there was no distinction.

Mr. Watson: Only people went to the apothecaries, because they were a better educated class.

Mr. Justice Coleridge: Then, according to your argument, the better educated class were governed, and the worse educated class were left as they were.

Mr. Watson: If my client had set over his door "Dr. Greenough," and had got a gold-headed cane, and had gone out prescribing, I submit there

was no law to prevent him. Supposing a coach-load of passengers had been upset, as I said when I addressed the jury, and he had attended them all for six months, and cured them, and prescribed for them, he could have recovered from them all, if he had held himself out as a surgeon. It is not an Act to regulate the medical profession.

Mr. Justice Coleridge: It is to regulate the apothecaries. You say an apothecary and a chemist was the same thing at that time.

Mr. Watson: They both engaged in pharmacy, but they were not an equally-educated class. No doubt, my lord; what I contend for is this, that as chemists and druggists, if I went into a shop, and asked them to prescribe for me, I put myself into the hands of a person who had not received so good an education, and I must take the chance of that; but still there was nothing to prevent them doing so. If a man holds himself out as a chemist and druggist, and I choose to go to him, and ask him for his advice as to what medicine I ought to take, that is merely practising as a chemist and druggist, as it would be merely (using the words of the statute) a "dispensing of his medicines."

Mr. Justice Coleridge: Surely it cannot depend upon his recommending you medicines in his shop, or his getting into his carriage?

Mr. Watson: If a person holds himself out as an apothecary, and goes round and visits as an apothecary, then I admit, at once, he would be liable to the penalties.

Mr. Justice Williams: In what way do you say this man acted?

Mr. Watson: I say he held himself out as a chemist and druggist, and nothing else, my lord.

Lord Denman: What was the meaning of chemists and druggists before the Act? Were they in the habit of attending, as well as mixing the drugs? And if so, would not the doing that afterwards be an infringement of the Act?

Mr. Watson then cited the case of Allison v. Haydon, which decided that a surgeon who was not an apothecary could not recover for medicines and attendance in a case of typhus fever; and argued that the plaintiff had in that case held himself out as an apothecary, and that it was no authority against the present defendant. The learned counsel concluded by calling upon the court to support the direction of the learned judge.

Mr. Cresswell: My lords, I am quite sure that no jury, having that respect for the opinion of a learned judge which all juries are bound to pay, could have found any other verdict than that which they did under his lordship's direction. It amounted, my lords, to a direction for the jury to give the verdict they did, while the jury almost remonstrated against it.

Mr. Watson: I don't know where you find that.

Lord Denman: I think it is clear the direction assumed that character.

Mr. Cresswell: The jury came back and said, In the absence of any evidence of what was the practice of chemists and druggists before the Act, we find for the defendant; desiring to hand a written paper to the learned judge, which he refused to receive; he saying, I give you my opinion on the law—you had better find a verdict absolutely one way or the other, according to that opinion; and then they found a verdict for the defendant.

Lord Denman: At all events there was a *prima facie* case, and it was for the defendant to take himself out of the Act.

Mr. Justice Patteson: I don't see the least possibility of doubt in this case, unless it can be said that an apothecary and a chemist mean the same thing, whereas the Act distinctly negatives it.

Mr. Justice Williams and Mr. Justice Coleridge concurred; and the court, without hearing the plaintiff's counsel in support of the rule, made the rule for a new trial absolute.

REPRESENTATIVE OF THE MEDICAL PROFESSION IN PARLIAMENT.

We extract the following from the last number of the "Medical Press:—

"We, the undersigned, request a Meeting of Medical Practitioners, desirous of sending a Member to Parliament, for the purpose of advocating the interests of the profession; to consider the steps most likely to attain that object."

To this requisition, thirty-seven physicians and surgeons affixed their signatures in the course of a few hours. The meeting is fixed to be held at Morrison's Hotel, Dawson Street, on Saturday, the 12th of June, at Three o'clock precisely.

Abraham Colles, Esq. M.D., will take the chair.

UNIVERSITY COLLEGE.

DR. W. H. WALSHE has been elected to the vacant chair of Pathological Anatomy in University College. From the proofs of talent and industry which Dr. Walshe has, on more than one occasion, given, we may venture to predict that he will prove himself to be a worthy successor of the distinguished pathologist whose chair he now fills.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The following Gentlemen have been recently elected honorary Fellows of this Society:—William T. Brande, Esq.; Robert Brown, Esq.; Sir John Herschel; Rev. William Whewell; MM. Andral, Louis, Magendie, and Baron Larrey, of Paris; Professor Ehrenberg, of Berlin; Professor Müller, of Berlin; Professor Panizza, of Pavia; Dr. James Jackson, of Boston; Dr. John Warren, of Boston.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, June 4, 1841.—William Hercules Stevenson, William Hannant, Ralph Mapleton, John George Bowlby, William Henry Yelloly, Thomas Handford, William Fothergill Tuckett, John Gregory Forbes, John Lambert.

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COURSE

OF

LECTURES ON PHYSIOLOGY AND SURGERY,

DELIVERED AT ST. GEORGE'S HOSPITAL,

BY JOHN HUNTER, F.R.S.

(From the Manuscript of Dr. Thomas Shute.)

LECTURE VI.

On Disease.

GENTLEMEN,—The body is capable of two states, perfection and imperfection. Health is a disposition to act properly, which may be wholly or in part. The body gets into different habits; if they tend to health, health continues. If to disease, then the contrary must happen. A gleet is an habitual discharge of the latter kind. To cure some diseases, the habit must be destroyed.

Disease is local, universal, or both. Local disease is seldom found entirely alone.

Local disease sometimes cures the constitutional, as when a fever terminates in an abscess. In such cases the local irritation takes off the general irritation of the constitution. This effort of nature has been attempted to be imitated by art; as by issues, setons, &c. But they never can be attended with any good on that principle, because they are incapable of affecting the constitution. Issues are often made on the principle of draining off bad humours, but such opinion is absurd, there being no such thing in the body; and if there was, there are numerous secretions which do it much better.

Constitutional affections often cure local ones; as fever, which often causes some local disease.

Constitutional diseases will often wear out; as the ague; such being only a particular disposition for action: but local disease is an alteration of the structure of the part. Constitutional diseases often terminate in local ones, that are so situated as not to be curable: as in an abscess in the loins, in which case the disease is reverted back on the constitution, and produces hectic.

No chemical process goes on in a living animal; its operations arise from life. To a speculative philosopher, accustomed to consider some powers of fermentation, the operations of the living machine, such as digestion, formation of blood, &c., may seem chemical. The formation of new solid substances, as the brain, bones, &c. from common blood may seem the effect of fermentation. He will call the secreted juices, as separated from the mass of blood and as changed, the effect of a fermentative process. But if we consider secreted juices (treated by analysis) yield the same substances as the blood whence they are obtained, it will appear that it is not fermentation, for the substances resulting from fermentation always lose the properties of the unfermented compound.

Indeed bitterness in the bile and sweetness in the human milk may seem quite new properties, and so the effect of fermentation; but these two properties are more conceivable as arising from life, than as from fermentation, in the circumstances in which they are produced. The principle of life may have one operation by which it produces sugar.

Nor is there any such mechanical combination of parts in the body, as to allow us to call its actions merely mechanical; they are motions on mechanical principles in the human body; but the motions begin from the living principle. Every action of the human body arises from stimulus, given to parts susceptible of impression, or from a disposition to act without impression. The properties of any matter are those of perfection or imperfection; the properties of perfection are those by which the matter continues in its own form, &c.

Health in animals is a disposition to act properly, according to the combined laws of the machine. Disease is a disposition to act improperly; the action is not the disease, it is merely the effect of the disposition, which is the disease; yet all we ordinarily attend to is the effect. Disease is either universal, partial, or both; of universal disease fever is an example, every part of the body is disordered by fever.

Local diseases seldom remain long without drawing the whole system into consent. They fall under the care of the surgeon. Mixed cases occur, as fever producing abscess, &c., or compound fracture, &c., fever. Sometimes local diseases cure constitutional ones, and this, when it happens, must arise from the constitutional complaints having centered in the local ones. Issues, setons, blisters, &c. never do good, as they do not affect the constitution. I have tried them in the hospital, but never found any real good effects from them; nor does the discharge of pus, so long kept up after the amputation of a limb, ever cure constitutional complaints.

Nor are local complaints to be cured by stimulating a distant part; for instance, a swelling of the testicle, occasioned from the stopping of the running from the urethra, is not to be cured by renewing the discharge. But a disease of the constitution is found capable of curing local diseases: thus, fever sometimes cures local diseases; the reason seems to be, that a constitutional disease affecting every part must of course affect the diseased part. Constitutional diseases, by long continuance, lose their power and malignity; but local sores, by continuing long, destroy the structure of the part, and do not heal till a new action is excited and supported in the part.

When local sores originate from an affection of the whole constitution, they only heal when the constitution is relieved. Thus, venereal sores heal when the venereal poison in the system is destroyed.

A constitutional complaint may produce a sore, which may be incurable, &c.; here the constitution has broke ground to destroy itself.

The habit of disease is two-fold:—

1st. The habit of rest, or an indolent mode of acting, from the disposition to act going off, or from the stimulus of health being lost. Thus, in the case of a fractured bone, if new bony matter do not form at the usual time, the disposition of the parts to form it is lost, and the union is never effected. In like manner, if during the descent of the testicle in a fetus, a bit of omentum accidentally falls into the hole, &c. the membrane loses the stimulus to unite and close up, which stimulus the descent of the testicle gave, and the hole remains open through life. Diseases being often complicated, one part, or one disease may be cured, another not.

2ndly. There is the habit of too violent action in disease: inflammation, for example, may be too violent.

Diseased actions are two-fold:—

1st. A part accustomed to impression becomes less affected by stimulus.

2ndly. Being once affected by stimulus, it may become too readily irritable. Of the former we have many instances; thus, the venereal virus having attacked the same constitution often, ceases to produce the disease. And most probably there are constitutions, which being much accustomed to that poison bear it with impunity, and retain it without inconvenience. In the West Indies, a stranger from Europe is affected by the mosquitoes, but the natives feel nothing from their bite. Nobody is attacked twice with the small-pox, from the constitution being suddenly stimulated the poison loses its power. In treating diseases it is a good general rule to check a morbid mode of action by exciting its contrary; upon this principle, we oppose to the habit of indolence the powers which are calculated to induce the habit of violence, &c.

INFLAMMATION.

Inflammation in surgery is the same as fever in physic. When it is perfectly understood, the treatment of half the surgical diseases is known. There are a variety of inflammations: the erysipelatous, scirrhus, scrofulous, &c.; but the common healthy inflammation is only to be treated of here. This is an operation intended by nature, sometimes to prevent and sometimes to cure local diseases. Simple inflammation has but one mode of action; compound inflammation comprehends two or more distinct modes of action; having three great effects, which are so many actions superadded to inflammation, and arising from new causes during the course of the inflammation.

This inflammation may be divided into three species or terminations, all of which are sometimes produced in the same part, sometimes only one. These three may be called, the precedent, attendant, and consequent. The first kind, the precedent, is adhesive; that is, the inflamed parts adhere together. This is what usually first takes place in the inflamed parts. If the viscera are inflamed their surfaces unite, as the intestines with the peritonæum, or with each other, the lungs with the pleura, and also the cells of the cellular membrane, &c. Thus cavities have a tendency to adhere when inflamed, whether they are large as

in the abdomen, or small, as in the cells of the cellular membrane.

This adhesion of the parts is caused by the extravasation of coagulable lymph which has passed through inflamed vessels. The surfaces of the great cavities are covered by this lymph, but the parts have no tendency to adhere until the vessels become inflamed, and then adhesion immediately takes place. The coagulable lymph therefore has altered its properties by passing through inflamed vessels; perhaps this alteration is an increase of the living principle given to it, or an increased disposition of its powers for action, which causes it to coagulate so firmly and quickly. As a proof of this, if a vein is examined which has been punctured, and the orifice united by the first intention, on the inside it will be found furred with coagulable lymph. This lymph must have come from the vasa vasorum, and have coagulated very quick, otherwise it would have mixed with the circulating fluid. This adhesion of parts taking place prevents suppuration, and also the inflammation from spreading. Suppurations deep seated may be attended with dangerous consequences, therefore nature produces adhesions to prevent such effect; but yet it sometimes takes place, especially near the surface of the body. When a part is inflamed, the cellular membrane is loaded with coagulable lymph, which glues the parts together, and prevents the inflammation from spreading, and also bounds suppuration. If this did not take place, the inflammation would spread, universally, becoming erysipelatous. Inflammation terminating by adhesion is commonly called terminating by resolution. The second stage, the attendant, is the suppurative, with the formation of pus. The third stage, or consequent, is the ulcerative. This is one of the most curious operations in nature; in it the constitution removes, or rather takes up a part of itself to get rid of something that is obnoxious to it; that is, something which obstructs its operations. This stage takes place, wherever the pus is confined, the parts surrounding the matter gradually growing thinner till they burst. This is performed by the absorption of the parts, and not by their melting down, which is generally supposed.

Inflammation arises from three causes, external injury, defects of parts, and specific disease.

It has been said to arise from obstruction in the vessels; this cannot well be supposed to happen; but had it been asserted, that it arose from parts being obstructed in performing their natural functions, probably it would have been the truth. For instance, pressure applied externally on a part will obstruct the circulation; this the constitution will comply with for a time; but if it be continued, inflammation will follow, and afterwards ulceration. This frequently happens to limbs that are fractured. Inflammation is generally called a disease. It, however, is not disease, for a healthy inflammation is one of the most salutary operations in nature; that which produces inflammation is the disease; the inflammation is a natural operation of nature to remove it. The disease is the specific quality in the part from whence the inflammation originates. Adhesion and suppuration arise naturally in a healthy constitution; erysipelas and other malignant inflammations, out of diseased and weakened constitutions. Spontaneous inflammation produces a salutary effect.

disease not. This may be illustrated from a hive of bees: if by chance a part of the honeycomb is broken away, it throws the hive into disorder, but not into disease, they set to work and repair it. So in the healthy constitution, disorder may be in a part, but the living principle, like the bees, retains a power of certain new modes of action, by which the disorder is rectified. So great is the power of health, that it can resist and overcome moderate specific irritations, and when the inflammation is set up, it does not alter the constitution to its own nature.

Variolous matter introduced into a healthy constitution is a specific irritation, which disturbs, but does not assimilate it. Most specific irritations are of this sort; but the plague is an exception, this altering the constitution to its own nature.

Inflammation from whatever cause produced is the same, whether arising from specific disease or external injury.

The differences of inflammation arise from constitution. The inflammation of a virulent gonorrhœa is local; but, if the constitution is bad, it will extend throughout the length of the urethra, becoming of the erysipelatous kind, in which case we have two diseases to encounter, the virulent, and constitutional. We have bark for the one, and mercury for the other. In those diseases for which we have specific remedies, we generally can cure the inflammation with the specific, as in the venereal disease. Where we have no specific for the disease, we must then act on the constitution. Some parts of the body only admit of one species of inflammation. Such are all those cavities that have an external outlet; as the stomach, œsophagus, intestinal canal, nares, pelvis of the kidney, ureters, bladder, urethra, &c.: these do not admit of the adhesive inflammation. When they are inflamed, suppuration immediately takes place; no ulceration takes place, because the matter is not confined.

Suppuration and ulceration are usually produced where there is any extraneous body to be removed; but if it is so deep-seated that it cannot be removed, then a cyst is generally formed round it. Deep-seated parts have a great backwardness to suppurate, and it is well that it is so, otherwise many very slight inflammations of the viscera would kill us. Inflammation often seems to arise spontaneously, not apparently owing to any local cause; in such cases it is generally a salutary termination of some disposition in the constitution to a diseased action. The inflammation ought not to be disturbed, as it is an effort by which the constitution is endeavouring to cure itself.

In weak constitutions inflammation is very slow and difficult to terminate. Such wounds unite with difficulty, owing perhaps to the living principle in the blood being very weak. In dropsical patients, wounds sometimes will scarcely unite at all, owing to their slowness to inflame. For want of union in the wound after tapping, it frequently happens that the stimulus of exposure is given to the cavity of the abdomen, by which it becomes universally inflamed, and soon kills the patient. Operations performed by the constitution are faster or slower in proportion to its strength or weakness.

In whatever way an inflammation is going to terminate in a healthy constitution, it is rapid in its

progress. If in adhesion, it is quickly performed. If in suppuration, it also very soon occurs. But in a weak habit these processes are slow. In anasarca people, wounds made in the skin will be very long in healing, and sometimes will continue open without inflammation, suffering water to be discharged through them for a considerable time. If inflammation takes place, in such cases it is very apt to terminate in mortification. In a stump, when the constitution is good, suppuration soon begins. If bad, then it is very slow. The effects of inflammation vary very much from situation, even when the parts are similar. A muscle in the arm will not inflame so much from the same degree of injury as one in the leg; this always being in proportion to the distance from the heart. Inflammations of the vital parts, as the lungs, stomach, &c., are not attended with a full pulse, as in other cases. The constitution particularly sympathizes with them; and the heart and arteries seem to lessen the strength of their action. If the stomach is inflamed, the pulse is low and quick; the uterus the same; and the intestinal canal, except the colon; for when the latter is inflamed, we have a full and quick pulse. In these inflammations there appears to be a rapid loss of the vital principle; for if it is not speedily removed, it very soon terminates in mortification. The vital principle appears to be particularly and similarly affected, when any part is inflamed, that receives its nerves from the par vagum or intercostal pairs.

The size in the blood does not appear to be owing to disease, for, if a woman is bled during pregnancy, the blood is constantly found to be sizey. Perhaps in them there is an increase in the living principle which causes it: women at that time are usually perfectly in health, frequently better than at other times; that state sometimes curing diseases. The constitution appears to have a power of exerting itself without being impaired.

When any of the vital parts are considerably inflamed, the symptoms at first are similar to those in the second state of inflammation externally; there is a low, quick, and irregular pulse.

Rigors attend sudden alterations in the constitution. Exacerbations exist in continued diseases. In the latter diseases, the disease is going on equally between the paroxysms as during the fit. But the constitution being incapable of exerting itself without alteration, it must necessarily rest, though operated upon alike at all times, whether in health or disease. There are periodical exacerbations of the pain and violence of inflammation, the second attack being seldom so strong as the first, unless a complete intermission happens. Regular exacerbation is a proof, and a consequence of this, that life cannot continue long in the same diseased state; she needs to rest from the disease, as the sensitive principle rests in sleep. Maniacs have fits occurring at regular periods of weeks, months, and years.

Ulceration seldom affects the constitution. A sore may spread on the leg with very little inconvenience to the system. Particular parts have a particular disposition to specific diseases, as the breasts of women, and testicles of men, which are very apt to become cancerous from injury, as a blow; when the same violence in the same constitution on any other part would not produce such effect. Also injury done to the lymphatic glands or

joints, is very apt to produce the scrofulous inflammation.

Irritation always produces inflammation peculiar to the constitution; therefore, the inflammation is varied from the kind of constitution, and not from the stimulus. When the stimulus is specific, there is something superadded, as in a chancre, where the inflammation is according to the constitution with the specific superadded. Some constitutions readily permit of the erysipelatous inflammation; in such we have the inflammation spreading far beyond the specific. The confluent small-pox is entirely the erysipelatous inflammation spreading over the surface of the skin.

OBSERVATIONS ON GLANDERS.

(Read before the Parisian Medical Society, April 29, 1841.)

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THE subject I have the honour of bringing before the Society this evening, is one which, though not altogether new in the annals of medicine, still possesses, I think, sufficient of novelty to render it interesting. It is not my intention to relate minutely the symptoms, progress, &c. of the disease, as they are usually observed and described by authors; these may be ascertained by referring to their papers on the subject, for I thought it would be better to relate some few cases which have come under my own observation, which, at the same time that they give a sufficient idea of the disease, still offer some points of peculiarity, interesting in themselves, inasmuch as they tend to show that we do not at present possess any strict nosological definition of this malady, and that one or two of the principal symptoms may be wanting, yet the disease be essentially glanders in one or other of its forms. Before, however, relating these cases, it may be as well to give a short sketch of the transmissibility of this disease to the human subject, the principal part of which I have taken from the "British and Foreign Medical Review" for July, 1838.

The earliest hint on the transmission of glanders to the human subject is said by M. Rayer to be contained in a work by Waldinger, published in 1810, in which the author enjoins the strictest caution in opening the bodies of glandered horses, as the most deplorable consequences, even death itself, may ensue. In 1812, Lorin, a French surgeon, published the case of an individual, who suffered under severe inflammation of the fingers of both hands, in consequence of a prick received in operating on a horse affected with button farcy. Observations resembling these, which allude simply either to local inflammations or affections similar to those resulting from the absorption of matter in ordinary dissection wounds, had been made in various quarters, when (in 1821) Schilling's well-known case appeared in "Rust's Magazine." In this case, designated by Rayer, justly, (as it appears to us, remark the learned editors of the "British and Foreign Medical Review," though its nature is still a matter of doubt for some,) as "the first distinct and well-characterised instance of acute gangrenous glanders in man," the evi-

dences of specific affection consisted in the peculiar glanderous discharge from the nostrils, a peculiar cutaneous eruption, and a gangrenous state of the nasal integuments. The "Edinburgh Medical and Surgical Journal" for January, 1823, contains a letter from an anonymous London physician to Dr. Duncan, in which allusion is made to some important facts relating to the subject before us. The writer refers to the malady of a veterinary surgeon, that had recently terminated fatally, having been 'contracted from a farcied horse, and characterised by ulceration in the part of the arm affected, and by what are called farcy buds extending up the arm. And further on he states, that there had lately been a patient at one of the London hospitals, with a sore arm, resulting from a wound and contact with the leg of a farcied horse; that an ass was inoculated with the matter taken from the patient's arm; that farcy, followed by glanders, ensued; and that, on the animal's death, ulceration of the septum narium was detected. In 1822, Remer, in an essay on the diseases of animals communicated to the human being, asserted that "glanders of horses infects men." In the same year, an Italian practitioner, Tarozzi, published an account of a pestilential disease that originated in a stable where a glandered horse was kept. Of 35 individuals who visited the stable frequently, 11 were seized with an affection characterised by fever, and an eruption of boils and gangrenous phlyctenæ.

The next contribution of importance appears in Mr. Travers's essay on "Constitutional Irritation." In the cases observed by Messrs. Travers and Coleman, affections possessing the characters of farcy and glanders were distinctly communicated from diseased animals to the human subject; and, on inoculation of the pus secreted by the latter, into healthy asses, the specific disease made its appearance, and terminated fatally in the animals experimented on. Mr. Travers, however, in spite of what he had seen, declares that "there is no evidence of the poison of glanders acting otherwise on the human body than as the poison of dead animal bodies." And, in order to reconcile his experience with the preconceived theoretical notion to which he evidently accords the preference, he has recourse to the extravagant hypothesis that the *specific* property of the poison is retained in its passage through the human system, though incapable of specifically affecting it.

The "Medical Gazette" for July, 1829, supplies the next valuable document in order of priority, in the form of a well-marked case of glanders, observed by Mr. Andrew Brown. The prominent features of the case were as follows:—Contact with a glandered horse; appearance of cutaneous pustules terminating in gangrene, and of tumors round the joints; "the right nostril contracted, and gummed with an inspissated discharge;" after death, "well-defined ulcerated tubercles in the Schneiderian membrane, exactly the same as those of acute glanders in the horse;" pus in the muscles, under the skin, and in the frontal sinuses, &c. Mr. Brown regards his case as of importance in regard to the question, namely, whether the disease be transmissible without the aid of an abraded surface.

This series of facts, joined to many others, was sufficient for forming the groundwork of a moderately complete history of the disease in the human

subject, and at least for placing the reality of the specific transmission beyond the reach of doubt. Strange to say, however, they aroused but little attention, and produced no conviction; nor was it until the appearance of Dr. Elliotson's paper in the *Medico-Chirurgical Transactions*, (read in June, 1830,) that the subject received the notice due to its importance. It may therefore with justice be said, that it was owing to the exertions of that acute and enlightened physician, that this disease was again brought before the notice of the medical public, and received by them with the deference due to his experience and reputation. In this respect, M. Rayer, in his work on glanders, does full justice to our celebrated countryman, and acknowledges that to Dr. Elliotson he owed his first notion of the disease. In his paper, Dr. Elliotson relates three very distinct cases of the affection, and so inexplicable, indeed, did their phenomena appear to him at the time of their occurrence, that when asked for his opinion of their nature, he "declared himself perfectly at a loss." The publication of Mr. Brown's case enabled him, as he avers, to clear up the diagnosis, and convinced him that the novel affection he had observed was none other than glanders.

From this period, cases and papers appeared in German and English journals. They have now accumulated to such an extent, that it is hardly just to consider the disease a *rare* one absolutely, much less relatively speaking, that is, if we pay due regard to the limited number of the individuals, whose position exposes them to contagion.

Dr. Graves, of Dublin, maintains it to be so common an affection in the provincial parts of Ireland, that, in his opinion, the legislature should, in imitation of the Prussian authorities, subject glandered animals to official supervision.

I think there cannot be a doubt of the justice of Dr. Graves's remarks on this subject. That the legislature of Great Britain should neglect the means of protecting its inhabitants from disease is a crying shame, more especially when we turn to France and Germany, and see how things are managed there. In these countries, glandered horses are prohibited from running on the public thoroughfares, and are thus prevented from communicating the disease to other animals, and to the human subject. Once a week there is held a horse-market in Smithfield, to which all the villanous screws and diseased animals from various parts of London are sent. As long as this nuisance is allowed to continue, the London hospitals will not be deficient in cases of glanders. I have heard the medical officers of St. Bartholomew's state, that during the time they have been attached to that institution, it was their firm belief that many instances of the affection had occurred in that hospital, though not at the time recognized by them. I have also been informed of the following circumstance:—Three brothers had been in the habit of attending these Smithfield *rémions*; they one by one caught the affection, (glanders,) and died. These facts, together with the cases of glanders which had lately occurred in St. Bartholomew's, induced a gentleman to draw up a petition, addressed to the Lord Mayor, and signed by nearly all the eminent men of that establishment, to abate the nuisance, and to appoint a competent person to examine the horses sent to Smithfield market. This petition met with the

consideration due to its importance; but, instead of selecting a veterinary surgeon to perform this office, the wise men of the east thought fit to appoint some city functionary, which rendered the object of the petition almost nugatory.

I shall now take the liberty of relating to the society two cases of glanders in the human subject, which I observed during my residence in London.

CASE I.—John Smith, æt. 30, was admitted into Pitcairn's Ward, St. Bartholomew's Hospital, on the 23rd of January, 1840, with an indolent ulceration in the lower part of the left fore-arm, communicating with a fistulous passage, extending upwards between the muscles to a little above the elbow-joint. From this sinus there was discharged a quantity of unhealthy-looking pus, the man being evidently in a bad state of health.

The patient stated that he was a knacker by trade; that about six months previous to his admission, he ran a splinter into his finger, of which, at the time, he took but little heed, but continued his usual avocations. On the day after the receipt of the injury, the finger became painful and inflamed, the pain extending up the fore-arm and arm, as high as the shoulder. In a few days, matter formed in the finger, and the flexor tendons sloughed. Soon after, another collection of matter took place in the palm of the hand, and subsequently to this, two other purulent deposits, one in the lower part of the fore-arm, and the other at the lower and inner part of the arm, just above the elbow-joint. The man was exceedingly intemperate in his habits, and used to drink gin to an enormous extent. After the lapse of a few weeks, his friends noticed that he began to lose flesh, and decline in health; but he still continued his employment for nearly two months after the receipt of the injury. He became an out-patient at the North London Hospital, had formations of matter in the finger, which were opened, but re-formed. Whenever the parts began to heal, the man stated that he became much worse in health, and that the pains in the arm increased; these pains he would have ascribed to rheumatism, had it not been for the wound in the hand. On one occasion, the abscess in the finger healed, but a fresh formation of matter took place in the lower part of the fore-arm.

On the 13th of October, 1839, he was admitted into the hospital. During the time he remained there, the abscess in the finger and hand healed, but that in the fore-arm and above the elbow still remained open. He was nearly two months in the institution; when, being in a bad state of health, and the abscesses showing no disposition to heal, it was thought advisable to make him an out-door patient, which he continued to be for a short time, and was readmitted on the 23rd of January, 1840. Poulitices and warm fomentations were applied to the arm, and the compound senna draught administered *pro re nata*. This treatment was pursued for a few days; but the sinus showing no disposition to heal, it was laid open; at the same time a more generous diet was allowed; two grains of the sulphate of quinine three times a day, sulphate of zinc lotion and water dressings to the wound, were ordered. Under this treatment, the parts assumed a more favourable aspect, the sinus contracted, and the discharge became considerably diminished.

On the 19th of February, that is, a few days after the wound began to heal, the man complained of pain in the arm and shoulder, which, by the 20th, had extended up the side of the neck. In the course of the day he had a rigor which lasted for about 20 minutes, and subsequently two other distinct attacks. On the following day he complained of pain at the left angle of the lower jaw, in which situation the parts were swollen and indurated; leeches were applied, and warm fomentations, besides internal remedies. On the following day he complained of pain on opening his mouth; the swelling had extended over the angle of the lower jaw, and up the side of the face, taking the direction of the parotid gland. The swelling was of a bright red shining appearance, indurated, and very painful on pressure; the leeches and fomentations were repeated, which, however, seemed to be of little or no benefit. The inflammation continued to extend, the palpebræ became involved and swollen, so as completely to close the left eye, from which a thick puriform discharge took place. The swelling and induration gradually extended forwards to the side of the nose. The integuments covering the swelling assumed a livid appearance, and ulcerated at various points, which gave vent to small collections of matter presenting very much the character of carbuncle. The lips became enormously swollen, and tubercular elevations formed on them, which rapidly passed into a state of ulceration. The mucous membrane lining the left side of the mouth ulcerated, and portions of it sloughed, the disease extending backwards to the posterior fauces. In addition to his other diet, the patient was ordered strong beef-tea, port-wine, and the sulphate of quinine; a large linseed meal poultice to the face, and the gargarisma sodæ chlorinatæ. Nothing, however, seemed to arrest the progress of the disease. He gradually passed into a low typhoid state; the breath became remarkably fetid, and was stated, by Mr. C. Clark, an experienced veterinary surgeon, who saw the man two days before death, to resemble very much that of a glandered horse. This statement I can in a measure corroborate, having had an opportunity, whilst in the country, of observing acute glanders in the horse, which, in fact, first drew my attention to the subject; in this animal there was something peculiarly fetid and nauseous in the breath, which effectually kept us at a respectful distance. But to return to our subject: Mr. Clark, also, in this man, immediately recognised the characters of the suppurative ulcers on the face and lips, as similar to the peculiar appearance of farcy buds in horses. The tongue, the entire cavity of the mouth, and the teeth, were covered with a dark brown or blackish sordes; great difficulty of breathing came on, apparently from some obstruction at the orifice of the respiratory tube; the patient became delirious, and expired on the following evening, the 15th of March, 1840.

The patient, from the commencement of the affection to its fatal termination, had no discharge from the nostrils; did not complain, though repeatedly questioned on these points, of any pain in the joints or in the head, nor was there any affection of the absorbent glands, or collections of matter in any of the external parts of the body remote from the disease, as in the groins, axilla, &c.

The poor fellow seemed conscious that the arm was the source of the mischief, and, during the

course of the affection, complained of pains shooting up and down the member; stated that he was in the habit of feeding glandered horses, and examining them after death, which he continued to do for some time (about two months) after the receipt of the wound in the finger; expressed his firm conviction that he was labouring under glanders, which, he said, "would do for him at last."

Post-mortem Examination.

The left parotid and submaxillary glands were found indurated, and adherent to the inferior maxillary bone; their substance was thickly studded with numerous small collections of pus, varying in size from a pin's head to a split pea, and around these collections the substance of the gland was highly vascular, and presented a bright red appearance; of the two glands the parotid was the most affected. The *alæ nasi* were livid, and had almost passed into a state of gangrene. Numerous tubercular elevations, which could hardly be said to have passed into a state of ulceration, were seen on the mucous membrane of the nares; this, I think, might account for the absence of the nasal discharge in this patient. The mucous membrane lining the larynx and trachea was much injected, and an ulcer was seen on it, just below the *rima glottidis*. Several small tubercles were seen at the apices of both lungs; the greater part of them were situated immediately beneath the pleura; they were about the size of millet seeds, very hard, and almost cartilaginous in their texture. These tubercles, Mr. Clark stated, were precisely similar to those occurring in the lungs of horses who had died of farcy or glanders; certainly they differed from the tubercles ordinarily found in phthisical subjects. The spleen was enlarged to three or four times its natural size, and in its substance there were found several small collections of pus. There was also a puriform deposit within, and in the course of the splenic vein, especially where it emerged from the substance of the organ. The mucous membrane of the stomach did not present any unnatural appearance. There was no collection of matter in the hip-joint, nor had we reason to believe that any of the other joints of the body were affected. The disease appeared to commence in the situation of the parotid gland, and from thence to extend to the mucous membrane of the nares and fauces.

The peculiarities of the foregoing case seem to be, the length of time which elapsed from the receipt of the injury to the first appearance of the symptoms indicative of this fatal malady; the absence of any discharge from the nostrils, and the circumstance of the healing of the abscesses in the hand causing an increase of the pains in the arm, and deterioration of the general health of the patient.

Since the above was written, I learnt the following particulars from the man's wife, namely:— That about the middle of August, 1839, he received the wound; that he went a week afterwards to the North London Hospital, and had the abscess in the finger opened, and the nail removed; that he continued his work for seven weeks, still making use of the injured hand, and then was admitted into St. Bartholomew's Hospital on the 13th of October, 1839. He remained nine weeks in this institution, and was then made an out-patient, which he continued to be till his

re-admission, which took place on the 23rd of January, 1840. From the time of his first admission into the hospital, (13th of October,) to the appearance of the symptoms indicative of this affection, (19th of February,) including a period of more than four months, he had entirely left off work; and during the time he remained an out-patient, had not been exposed to fresh contagion.

This statement was severally corroborated by his former master, and the club of which he was a member; and I have been thus particular in the relation, as it tends to prove that the virus of glanders may for a time lie dormant in the system, and, after a longer or shorter period, break forth with all its virulence. We see an analogous instance to this in the absorption into the system of another animal poison, communicating a specific disease; I allude to hydrophobia, with which, as regards its incurability and fatal effects, glanders seem to possess a reputation scarcely less formidable.

The next case I am about to relate, is that of a nurse who attended upon this man, and who, I have reason to believe, took the malady from him.

CASE II.—Jane Love, æt. 42, on the third or fourth day after the death of the man, John Smith, related above, and upon whom she had been attending, perceived a "hard lump," as she termed it, near the left axilla, which was painful, the pain extending down the inner side of the arm. She, however, took so little notice of this, as not to mention the circumstance to any of us. On the Saturday evening, (March 21, 1840,) being the sixth day after the man's decease, the pain in the arm increased, and an inflammatory blush appeared on it, which continued to extend, and on the Sunday morning presented the following appearance:—The anterior, posterior, and inner aspects of the arm, from the axilla down to the elbow, appeared to be the seat of an extensive phlegmonous inflammation, of a brick red or dusky hue, and limited by a well-defined and elevated border. The swelling was indurated, very tender on pressure, and on its surface could be seen several small tubercular elevations, a livid patch, about the size of a shilling, in the neighbourhood of the axilla, and close to this a large irregular shaped vesicle, containing a yellow viscid substance at the bottom, and a clear limpid fluid floating above. The woman, who was of a plethoric habit of body, had an anxious countenance, rapid pulse, dry and furred tongue, which was red at the tip and edges, and accelerated breathing: complained of great thirst and a deep dull aching pain over the situation of the eyebrows. Stated that she had had several attacks of chills, alternating with heat of skin, and had scarcely a wink of sleep the two preceding nights. Thirty leeches were applied to the arm, which gave almost immediate relief. The member was then enveloped in a linseed-meal poultice, and the usual anti-phlogistic regimen enjoined.

On the next day, she expressed herself much better; the arm was less painful; the tongue moist and cleaner. Two incisions were made in the arm; the subjacent cellular and adipose tissue was hard and brawny; no pus followed from the incisions, merely blood mixed with a small quantity of serum. On the following day there was no discharge of pus from the wounds; the parts showed

no inclination to take on healthy action, but the inflammatory redness had crept down the elbow to the fore-arm. The tongue was dry, brown, and chapped; pulse rapid and deficient in power; countenance anxious. As it was now considered necessary to support the system, she was ordered strong beef-tea, and the sesqui-carbonate of ammonia, in five grain doses. This for a time had the desired effect; the patient's countenance became cheerful, and she expressed herself as being much better; the pulse at the same time became less rapid, with more power, and the tongue in a better condition. This state of things, however, did not long continue; no suppuration had yet taken place from the incisions; there was no tendency in the parts to take on healthy action; an erythematous blush appeared on the upper part of the chest and about the neck; several red and purple spots, about the size of a split pea, were seen on the left mamma, and between this and the shoulder; the patient complained of great thirst, and was constantly calling out for drink. The yellow basilicon ointment was applied to the incisions, with the intention of inducing the suppurative process; this, however, it failed to do. The inflammation gradually extended down the fore-arm to the wrist; and upwards over the shoulder, involving the side of the neck and upper part of the back, and extending as far round as the shoulder of the opposite side. She gradually passed into a typhoid state, refused all nourishment, except a little wine and water, grew weaker and weaker, difficulty of breathing came on, and she sank on the morning of the 30th, being eleven days from the commencement of her illness.

The functions of the sensorium were affected early in the course of the disease, a low muttering delirium being present. There was also great dread on the part of the patient, of having taken the affection from the man upon whom she had been attending.

Post-mortem Examination.

The affected arm was found infiltrated with pus; purulent deposits were also seen between the muscles, following the course of the vessels, and extending up to the side of the neck and front of the chest, but the veins themselves were entirely free, and appeared healthy: numerous small collections of pus were seen in the substance of the muscles or the anterior part of the thorax; the integuments of the fore-arm were livid, and the subcutaneous and adipose tissues infiltrated with a sero-purulent fluid. The mucus membrane lining the larynx, trachea, and bronchi, was highly injected; in fact, I may observe that the mucous membrane of the bronchi became affected two or three days before her death, as indicated by a loud mucous râle, heard over the upper part of the thorax. The parotid and submaxillary glands did not present any unnatural appearance. There were no adventitious deposits in any of the viscera; the spleen was of its natural size, but softened in texture. The shoulder-joint of the affected side did not present any unnatural appearance when cut into; and as we had no reason to believe that any of the other joints of the body were affected, they were not examined.

I may here remark, in reply to a statement made by one of the members of this society on a late occasion, "that pathological anatomy was not culti-

vated in England with that zeal which its importance merits;" that the system of examining bodies from top to toe, if I may be allowed the expression, as practised in France, is not generally followed in England, owing to the injunction almost invariably laid down by the friends of the patient, "to disfigure the body as little as possible." Hence our attention is generally directed to those organs, which, from the symptoms presented during the course of the disease, we have reason to believe will be found affected. That pathological anatomy is cultivated with less ardour in England than amongst our neighbours on this side the Channel, is a remark which, though often made, I verily believe is by no means just. This I think I may state with some degree of confidence, for I have known of repeated instances of medical officers attached to our hospitals, who, together with the arduous duties incumbent on them in these institutions, have been engaged in extensive private practice, devote a considerable portion of their time to the dead-house, and in persuading the relatives of those who have died in our hospitals to allow their bodies to be examined; who have, moreover, called at their private residences for that purpose; and where the bodies have been removed from the hospital, have gone themselves to those abodes, have obtained permission to make an examination, and have brought the fruits of their researches for the information of their pupils. I have known, also, these medical officers, where they have met with considerable opposition on the part of relatives, offer to pay the burial expenses out of their own private purses, and I have known them go to a considerable distance from the metropolis to examine an interesting case. Let us not do them, then, the injustice to say, that they cultivate less ardently this interesting branch of medical science than our enthusiastic brethren in France. To those who think the contrary, I would, without mentioning the splendid museum at the Royal College of Surgeons in London, which justly excites the surprise and admiration of strangers, beg them to compare the museums of morbid anatomy in London with those in Paris. There is scarcely an hospital of any note in the English metropolis, that does not possess a finer collection of morbid preparations than is to be met with in the three museums which Paris can alone boast of, namely, the Musée Dupuytren, that of the Ecole de Médecine, and the one attached to the Anatomical School of Clamart. The museums belonging to our various schools of medicine in London, as well as those appertaining to almost all our provincial hospitals, are, I should say, living monuments of the zeal with which this branch of science has been cultivated by the eminent men who have been attached to those institutions. If pathological anatomy is more extensively cultivated in France than in England, it is owing to the opposition which medical men in the latter country meet with, especially from the ignorant and prejudiced part of the community; a class with which our hospitals abound. In reference to this subject, I will relate an anecdote which occurred during the time I was a pupil at St. Bartholomew's.

An Irishman died in one of the wards of that institution; and as the case was one of considerable interest, after a great deal of difficulty, permission was obtained from one of his relatives to examine the body. His companions, hearing of this, came

en masse to the hospital, and whilst we were engaged at the examination, a violent altercation was heard from without, and then a scuffle between the beadles of the hospital and the former comrades of the man. The Irishmen, however, bore down all opposition, and came thundering at the door, vociferating loudly for admission, and swearing, by all that was holy, they would murder every one of us, if we touched the body. We had just time to retreat through a side-door, when our friends gained admission, and carried off their former comrade in triumph.—But to return to the subject from which I have digressed, I may remark, that the foregoing was a case of absorption of the poison of glanders into the system, may, I think, be fairly presumed from the following circumstances, namely, the constant attendance upon the man who was labouring under this contagious disease, the nurse at the time having several abrasions on the hand of the affected side, and the great liability of poisonous matter coming in contact with these abrasions during the performance of her necessary duties; for I may state, that this unfortunate woman was observed frequently to have her hands covered with the matter discharged from the glandered man, and which adhered to the poultices, which she was in the habit of applying two or three times a day, and that after these applications she neglected the common precaution of washing her hands; of this, the sister of the ward repeatedly told her, but to which she paid no attention. Again, the appearance of the symptoms just at this particular period, namely, within a few days of the man's decease; the aspect of the affected parts, and the history and progress of the case, were something more, I think, than an ordinary attack of phlegmonous erysipelas; the great dread on the part of the patient that she had poisoned her arm, is not, I think, to be lost sight of; as also, the almost invariable occurrence of phlegmonous erysipelas in consequence of local irritation, and the comparative rarity of the affection arising solely as a constitutional disease; and lastly, the tendency of dissection or other poisoned wounds to produce a form of inflammation analogous to the foregoing.

I think, therefore, there can be little doubt as to the propagation of the disease in this instance, and although two or three of the most prominent symptoms of glanders were absent, still this is not, I think, a sufficient reason for saying that it could not be that affection. I believe, in fact, that glanders may appear in the human subject without those signs which are usually regarded as most characteristic of the malady, namely, tubercular elevations, or suppurative ulcers on the skin and pituitary membrane, and purulent discharge from the nares; and that those who expect invariably to find these symptoms will be disappointed. Medical men of the present day do not admit of so strict a classification of disease as to say, because such or such a symptom is not present, that therefore it cannot be the affection in question; it is the *tout ensemble* of the symptoms that they judge by, and not from any one or two in particular. The rapidity of the disease in the foregoing case will easily account for the absence of discharge from the nostrils, suppurative ulcers or chancres on the Schneiderian membrane, and development of tubercles in different parts of the body; these, in fact, had not time to appear.

With the matter taken from this woman's arm I inoculated three kittens; two of them during the life of the patient, and the third after her death. The kittens appeared to have nothing the matter with them till the punctures were nearly healed, when they were affected in an extraordinary manner, losing the use of their limbs, and appearing to labour under the influence of some poison absorbed into the system. One of the kittens had also a viscid purulent discharge from the eyes; in this animal, the matter taken from the nurse's arm was placed in contact with the conjunctival membrane. The mother also appeared to be affected, and lay snuffling and sneezing, refusing all nourishment. To Dr. Elliotson, who came to the hospital to see this woman, I mentioned the experiment I had made, and he desired that in case the kittens became affected, I would try the application of creosote to the punctures, stating at the same time that he knew of two instances where the disease, being confined to the nasal cavities, had been arrested by the application of this remedy, in the proportion of one to two minims to the ounce of water. I fully intended to have tried this plan, but one of the hospital nurses hearing that I had inoculated the kittens from the woman who had lately died, and that they had become affected during my absence, took them from the cupboard where they were confined, and destroyed them.

Some remarks on the foregoing case were made by Mr. Percival, veterinary surgeon to the First Life Guards, who states, that "there cannot be a question about the ill-fated nurse being contaminated by the knacker." I think the experiments made on the kittens are a strong corroboration of this opinion. Mr. Percival goes on to add, that veterinary surgeons of the present day do not believe in the propagation of glanders by infection; their only fear is, that some of the discharge from the nostrils or farcy ulcers of their patient may come in contact with abrasions, or be applied to the mucous membranes.

At the time the foregoing case was published, I was not aware of any similar instance of glanders being communicated from one human subject to another; but a correspondent of the London Medical Gazette states that a similar case is to be found in the *Lancet* for 1831-32, and which occurred in Ireland, where a father caught the disease whilst nursing his son, and both died.

(To be concluded in our next.)

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, JUNE 19, 1841.

NOTWITHSTANDING all that has been said and written on the subject of the medical relief of the sick poor, the evils which have been so often complained of still continue to exist. The practice of disposing of the office of medical attendant to the

lowest bidder is yet tolerated; the extent of the districts yet bears no proportion to the physical powers of the medical officers and the salary allowed, which, in those periodically recurring moments of happy inspiration, when the commissioners indulge their ideality in drawing up a report, may probably be facetiously called a remuneration, leaves to the medical officer individually, when balanced against the cost of leeches, and bandages, and drugs, and other expenses, direct or incidental, the same reputation for gratuitously placing his time at the disposal of the public, which the profession, as a body, has ever enjoyed.

The time now permits that, however honourable members of the Commons House of Parliament, when secured in their seats, may refuse to listen or give heed to the complaints so generally and so loudly made, all who feel themselves aggrieved may obtain a hearing for their just and reasonable representations. The very difficulties of the canvass of a large and scattered constituency will certainly dispose the candidates to feel in their own persons that time and space are not of infinitesimal account, and that to traverse a considerable extent of the one in a given period of the other, is in itself deserving of something more than a minimum allowance of the smallest current coin of the realm. Putting out of consideration the value of the advice bestowed, the cost of the drugs and appliances, and the many other modes in which the medical officer is called upon to draw upon his salary in the discharge of his daily avocation, the mere consumption of time, and the actual labour expended in traversing the area of his district, are in themselves estimated often below what the unlettered artizan would receive.

It is difficult to imagine upon what principle the advocates of the poor-law can justify their disregard of those questions so repeatedly pressed upon them. Every act of the commissioners is obviously directed mainly by the desire of forcing down the sums expended in the actual relief of the poor to the lowest possible amount. It is, indeed, manifestly their interest to follow out this plan, as they were constituted for the express purpose of placing a check upon the expenditure of the parochial funds in support of the poor; and their continuance in authority, and in the receipt of the emoluments of office, depends upon the success which attends their efforts. In this attempt, therefore, to repress the want of discrimination, extravagance, and abuses, which, it must be admitted, too often at one period characterised the public administration of relief to the poor, it is, perhaps, not to be wondered at, that the true principles of right and justice should have been disregarded,—that in order that the expense of maintaining the

poor may be reduced to the lowest possible amount, the necessities of the infirm and the aged, the sick and the destitute, should have been systematically disregarded, family ties recklessly severed, and every means had recourse to, which ingenuity could devise, to compel the poor man to suffer all but absolute starvation, before accepting of the relief upon the terms offered. But though such may be the interests of those in authority under the commission, how is it that the iniquities of the system find advocates among statesmen, members of parliament, and others who profess especial regard, whenever it suits their purposes, for the welfare of the mechanic and the labourer? How is it, that among such there is no consideration for the circumstances of unlooked-for misfortune, for the distress constantly and necessarily inflicted by the fluctuations of trade and commerce, for the accumulated misery which a lengthened illness always entails on the family of the industrious poor? It is not the principle of the poor-law that it administers bare sustenance to the starving, imprisonment with worse than prison-diet, on conditions which, though they affect but little the dissolute and unworthy, are scarcely more tolerable than death itself to the man of kindly affections and social feelings?

The poor-law, we are told, has no respect to persons, and in this point appeals to an authority which tells of the cheering influences of the sun and the fertilizing shower being bestowed alike on the evil and the good, on the just and the unjust. There is, however, this trifling difference between the precept given, and the doctrine attempted to be drawn from it. According to the one, the blessings of an overruling Providence are freely dispensed to all, and assurance given that they are so in a spirit of love and beneficence. According to the other, the boon of food to the perishing is only to be bestowed when nature can bear no more; and in order to ensure that the last degree of suffering shall be endured before the unwilling hand is compelled to relax its hardened gripe, the gift is accompanied with pains and penalties, deprivation of personal liberty, separation of children from their parents, mothers from their little ones, of the wife from the husband, punishments of offences by stripes and seclusion in a dismal cell, and a hundred other atrocities which it sickens us to contemplate. With much of the wretchedness of this public visitation of poverty as a crime, the medical practitioner is concerned no farther than others of his fellow citizens; but in pointing out the fatal effects which must result from the application of the system to the health and life of the inmates of the union workhouses, he is in his own peculiar province. It is for him to show,—for

none other can better perform the duty, none are able so fully to appreciate the evil,—it is for him to show that the congregating together of these unfortunates, depressed and enfeebled both in mind and body by previous sufferings, with spirits broken, and every domestic feeling outraged, deprived also of personal liberty, and of everything which could cheer the sinking heart, or support the power of mental and physical endurance, must necessarily favour both the generation and spread of severe and fatal epidemic disease. It is for him to show that the supply of washy and innutritious diet, which under the most favourable circumstances would ill support the strength of the artisan or labourer, must under such circumstances add another poisonous ingredient to the already overflowing cup of physical and moral evil.

In urging these considerations upon those who have hitherto allowed themselves to be guided by a cold and calculating policy, and upon those whose feelings mayhap have not yet been darkened and debased by nightly familiarity with party disputations and political strife, the medical practitioner is labouring in that vocation of humanity to which he devotes his energies. But it is incumbent on him also at this time to seek the redress of his own grievances, to require that, while the poor-law commissioner is amply paid for his superintendence of the working of the system generally, the services of the medical officer shall also be fitly remunerated, and his duties so distributed as to render them within his power to perform. If it be an object of the poor-law to afford relief to the necessitous, so that in a country the operative classes of which are peculiarly subject to vicissitudes and reverses, no man shall be allowed to suffer from absolute destitution, the food administered should be wholesome, nutritious, and in sufficient plenty, and the distribution of it should take place in a kindly spirit, and be accompanied with no expressions of contumely or reproach. He who actually stands in need of the relief should receive it; he who, from disorderly conduct or other vicious habits, is reduced to make a claim for the same, should obtain it only on the condition of earning it by the labour of his hands and the sweat of his brow. If it be an object of the poor-law to provide medical relief to the sick poor in the cure or alleviation of the diseases to which all, and especially the poor, are subject, the relief administered should be effective; the medical officer should possess such a qualification as may ensure his competence, his duties should be so apportioned as to enable him to give the requisite attention; his remuneration should be such not only as will allow of his exhibiting those remedies and medicines which are of the greatest

efficacy, without loss to himself, but should also repay him for his time, labour, and talents, render the situation worthy of his acceptance, and take away every pretext for the imperfect or non-fulfilment of his contract. Above all, as the office is necessarily a responsible one, and implies considerable trust, full confidence should be reposed in those who hold it, and consequently none but men of character, as well as of attainments, should be appointed to it. Not one of these requirements, however, is provided for by the mode of administering medical relief under the existing poor-law; not one of them can be effectively provided for, so long as the system hitherto pursued is persisted in.

The office of medical attendant, instead of being made one of trust and confidence, is degraded equally by the manner in which it is sold to competition, and by the inducements which are held out to encourage persons to undertake it. The dishonourable motive of an unfair competition with the established medical practitioners of the place, in their private practice, is held out to compel those gentlemen to come into terms which are alike disgraceful and injurious to them. Men of no known character are thus from unworthy motives induced to apply for these situations. How then can the office be an honourable one? Again, large portions of country are thrown together, ten, fifteen, or more miles in extent, and no regard is paid to the residence of the medical officer being central, or even within the bounds of his district—how then can the requisite attendance be given? The salaries are, on all hands, avowedly such as can barely, if at all, defray the expense of medicines and other appliances—how then can such remedial measures as are necessary be had recourse to, either with justice to the sick or to his medical attendant? The objections to the mode of administering relief in other ways are equally forcible, and the only fair inferences therefore are, either that the administration of the poor-law is not in accordance with its intent and spirit, or that its provisions are based upon principles which are a disgrace to the age and country wherein they have originated.

A late number of a weekly periodical which, if we can believe its proprietor, circulates extensively amongst the nobility and gentry of this country, contained the following elegant effusion:—

"We have just received from a correspondent, copies of the two veracious things called 'medical journals,' in which the supposed conduct of the Editor of 'The Lancet' in the House of Commons, relative to the Vaccination Act Amendment Bill, has been condemned. The writers, as is the common practice of such persons, have penned

nothing but falsehoods from beginning to end of their effusions. Their stupidity is only matched by their malignity. Really, are there any DUBS in England or Ireland so utterly conceited and senseless, as to consider that the general practitioners of this empire will ever experience a single unfriendly act from a man who has advocated their cause without ceasing, tiring, or flagging, for nearly twenty years? A plain statement of facts in exposure of the allegations of the contemptible writers in question, will furnish the profession with a tolerably correct index to the feelings that influence certain persons regarding the conduct which the Editor of 'The Lancet' considers it his duty to pursue to the profession and the public, and that statement shall appear in our columns next week."

We had prepared an answer to this production, but on further consideration have been induced to suppress it, having little desire to imitate the Wakleyan style of writing, and being fully convinced that it were useless to address the Editor of the Lancet in the conventional language of civil society. We had been prepared to show that the pot-house colloquia of the Coroner for Middlesex have not much improved the manners of the member for Finsbury; that you may pitch-fork an adventurer into the House of Commons, without increasing his claim to the title of gentleman; that the public life of the Editor of the Lancet has been a pale imitation of his prototype O'Connell—agitation for selfish purposes—a begging-box sent round—an oath registered. Finally, we had intended to show that other and much greater personages than we, were "so utterly conceited and senseless," as to doubt the high-minded purposes of the Editor of the Lancet, and to view his public conduct in a befitting light.

Lord John Russell's character of the honourable member, for example, was alluded to by us; as was also the "endorsement" of Lord Howick. These "contemptible" speakers, these "utterly conceited and senseless persons," dared to pronounce the following "falsehoods" before the assembled Commons of England, against the virtuous and disinterested Editor of the Lancet.

Lord John Russell said: "If they did give members to those places (the metropolitan boroughs), they would (it was held) send in a set of mischievous demagogues, who would have no regard for the genuine interests of the people, but would advocate the wildest democratic views; who, if they happened to obtain a seat in a court of justice, would convert it into an arena for political discussion; and if they contrived to hold an important office connected with the administration of justice, would pervert the powers conceded to them, to the furtherance of their own political views."

Lord Howick informed the House of Commons,

that "although a member of the College of Surgeons, he might be anxious to acquire a low and despicable popularity; he might wish to flatter the worst passions and prejudices of the multitude; he might avail himself of the power he possessed, and convert it to purposes of mischief."

These and many other topics we touched upon; but we must not reproduce our "rejected address."

REVIEWS.

The Sanative Influence of Climate: with an account of the best places of resort for invalids in England, the South of Europe, &c. By SIR JAMES CLARK, Bart., M.D., F.R.S., &c. London. 8vo. 1841. Pp. 377.

THE well-known treatise before us has undergone so many alterations and improvements in the present edition, that it may be considered in a great measure as a new work. In a very sensible introduction, Sir J. Clark explains the general advantages to be derived from change of climate, and at the same time warns us against the prevalent error of expecting too much from it, and placing, as it were, an empirical trust in the mere translation of the patient's person from one region to another, without reference to the kind of climate which is likely to benefit him, the period of disease in which change of climate should be resorted to, and the circumstances and means which should co-operate to render it fully efficacious. He animadverts on the fallacy of the common opinion, that consumptive diseases are those in which the good effects of change of climate are most conspicuous, and remarks, we believe, justly, that if the remedy were to be estimated solely by its effects in consumption, it should be valued at a very low rate. He adds, that in disorders of the digestive organs, and the nervous and mental affections attendant on them; in asthma, bronchial diseases, scrofula, and rheumatism, the beneficial results of change of climate are much more obvious than in consumption. His conviction of the importance of these considerations, and of the general want of attention to them, has induced him, in the present edition, to reverse the former order of his subject, and to notice the diseases benefited by change of climate before commenting on the different climates themselves. His remarks on disease are arranged under the heads of, disorders of the digestive organs—pulmonary consumption—diseases of the larynx, trachea, and bronchi—asthma—gout—chronic rheumatism—delicacy in childhood and youth—climacteric disease—diseases of warm climates—convalescence.

Diseases of the digestive organs.—These are dis-

tinguished by Sir J. Clark, with reference to his present purpose, into inflammatory or *gastric dyspepsia*, irritable or *nervous dyspepsia*, and *atonic dyspepsia*. The symptoms generally characteristic of these states are well described, with a necessary admission that they pass into each other in every variety of shade, and that the successful treatment of each will depend much on the discrimination exercised in referring it to its proper place in the scale—a remark as applicable to change of climate as to any other remedy. The dietetic and other rules to be observed previously to, and in conjunction with, travelling, in the foregoing cases, are ably laid down, and we would particularly direct attention to the author's prohibition of travelling for patients labouring under gastric dyspepsia, or chronic inflammation, or organic diseases of any of the abdominal viscera. He observes that if a disease be of a purely nervous character, exercise in the open air is a powerful means of restoring health; but that if the symptoms depend on chronic inflammation, exercise will seldom fail to increase it, and may even convert a chronic into an acute disease; (p. 41.) In the justice of this observation we entirely concur, and lament, with our author, the too general neglect of the distinction which it involves.

Pulmonary Consumption.—The causes, nature, and progress of phthisis were pretty fully discussed in the former editions of this work; but as the author has published his views relating to them in a separate form, he has here judiciously confined himself to the consideration of tuberculous cachexy, or that morbid state of constitution, which he regards as the precursor and essential predisposing cause of consumption, and during which, he believes, that the beneficial effects of change of climate are chiefly to be looked for. The opinions of a practitioner who has produced works of distinguished merit, both on consumption and on climate, are particularly worthy of attention, respecting the application of the one to the treatment of the other.

Where the tuberculous cachexy merely is present, Sir J. Clark believes that well-grounded hopes may be entertained of permanent benefit from a change of climate; but to render this probable, we must previously correct, as far as we are able, the more obvious disordered actions which accompany the cachectic condition. These consist principally in deranged functions of the digestive organs and the skin, with general debility, and often with local irritation and congestion. The principal object, in such cases, is to promote a more free and regular distribution of the circulating fluids, which will best be done by a mild, nutritious diet, suited to the state of the digestive

organs; by exercise in the open air, especially on horseback, proportioned to the strength of the patient; by the warm bath; and cold sponging and friction of the surface; in short, by all those means that contribute to increase the general health. If this period of the disease have been allowed to pass by, and tuberculous matter have been deposited in the lungs, we have, in addition to the pre-existent functional disorders, a new series of morbid actions, as bronchial affections, hæmoptysis, inflammation of the pleura and lungs, &c., which call for important modifications in the plan of treatment: yet even here, removal to a milder climate, especially if effected by means of a sea voyage, may be useful by improving the general health, and obviating inflammatory affections of the lungs; and it may, perhaps, even arrest the progress of the disease. In confirmed consumption, we are truly glad to find our author generally opposed to change of climate, and recommending the patient to content himself with the best climate his own country affords, or to remain at home, with his friends and domestic comforts around him. The last we conceive to be by far the best plan, except where there is something decidedly objectionable in the locality of his ordinary residence.

"It is natural," says Sir J. Clark, "for relations to cling to that which seems to afford even a ray of hope; but did they know the discomforts, the fatigue, the exposure, and irritation, necessarily attendant on a long journey in the advanced period of consumption, they would shrink from such a measure. The medical adviser also, when he reflects upon the accidents to which such a patient is liable, should surely hesitate ere he condemns him to the additional evil of expatriation; and his motives for hesitation will be increased when he considers how often the unfortunate patient sinks under the disease, before the place of destination is reached, or, at best, arrives there in a worse condition than when he left his own country, and doomed shortly to add another name to the long and melancholy list of his countrymen who have sought, with pain and suffering, a distant country, only to find in it a grave. When the patient is a female, the objections to a journey apply with increased force. In these advanced cases the patient's sufferings may often be alleviated, and life prolonged by confinement to apartments kept at a regulated temperature."—(P. 53.)

Our author, however, properly remarks that there are some cases in which patients, even in a very advanced stage of consumption, may derive benefit from a change of climate. In chronic cases, where the tubercular affection is usually limited to a small portion of the lungs, and exerts

little effect on the system, a mild climate may prolong life. In those rare instances also, where the disease in the lungs has ceased to extend, and a long process of reparation is in prospect, a mild climate will be serviceable by improving the general health, and preserving the patient from the atmospheric causes of irritation to which he would be exposed in this country. Our limits will not allow us to notice all the diseased states illustrated by our author; there is one, however, on which his remarks are too important to be passed by, namely:—

Delicacy in childhood and youth.—There are, according to Sir J. Clark, two periods in early life when a residence in the south of Europe may be particularly beneficial: the first is during childhood, from the third or fourth year upwards; the second is that of puberty.

Children at the age above mentioned often become subject to catarrh on slight exposure to cold; to gastric irritation; constipated bowels; enlarged glands; and other indications of a strumous disposition. In such cases Sir J. Clark has found one or more winters passed in Italy of great service; his praise, however, is restricted to winter, as he has often observed an injurious effect on such children from the Italian summer, especially if the residence be prolonged beyond a single season. He remarks, in a note, that passing a winter in Italy generally proves useful in difficult dentition, while summer is in the same degree pernicious. He adds that infants should generally be suckled longer in Italy than in England, and that it is a rule never to wean them in the spring while teething. Chronic croup and a disposition to hydrocephalus, when unattended with marked gastric symptoms, are mentioned by our author among the morbid conditions of childhood which are benefited by passing the winter in the south of Italy. He considers Rome and Nice as the best winter residences for children, the former being preferable where the digestive organs are irritable, and the latter where the constitution is languid and torpid.

But, in our author's estimation, the most important disease of childhood, and that of which the right understanding affords a key to the treatment of almost all diseases at this period of life, is disorder of the digestive organs. This may assume the same characters in childhood as at other periods of life; but by far the most frequent and destructive form is that of *strumous dyspepsia*.

The symptoms of this disorder are briefly but graphically described, and its probable transition into tubercular cachexy pointed out.—(P. 85, 86.) With reference to its treatment, Sir J. Clark shows the folly of the ordinary routine practice, and the

inapplicability of stimulating diet, mercurial purgatives, and mineral and other tonics, to cases in which gastro-duodenal irritation, and congestion of the abdominal viscera, are always present in a greater or less degree. In lieu of these he recommends a diet better adapted to the digestive powers—the use of means calculated to remove abdominal irritation and congestion—and a residence in a mild climate, with frequent changes of air during the summer. In the early part of the summer he regards the interior of the country as the most suitable, and the sea-side towards the end of the summer, and during autumn.

We have confined our notice chiefly to the first part of this volume, because it is of at least as much importance as the second, and less likely to attract attention. The second part, which treats more immediately on climate, we must dismiss in a few sentences, but this we regret the less, as we can conscientiously recommend the whole work to the most attentive perusal. The introductory remarks to part the second contain some judicious advice to invalids, respecting ventilation, choice of residence, and management of the general health. The various climates of Great Britain, the Channel Islands, France, Italy, Switzerland, the Mediterranean, and the islands of the Eastern and Western Atlantic, are then reviewed in succession. A large appendix is added, containing:—1. A view of the climates of the Southern Hemisphere, as the Cape of Good Hope, Australia, and New Zealand; 2. Remarks on the medicinal application of the principal mineral waters; and 3. Meteorological tables, bearing on the subject of climate, and illustrated by notes. In taking leave of our author, it is but justice to say that the work is written in a very clear and pleasant style, and that the general reader, as well as the physician, will find much that is interesting and instructive in its pages.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 8, 1841.

Dr. WILLIAMS in the Chair.

READ A PAPER ON THE ACTION OF POISONS,
BY JAMES BLAKE, ESQ.

THIS paper contains a confirmation of the author's researches on the action of poisons, the greater part of which have already been before the public. After some remarks on the manner in which researches should be conducted, the author observes, that the present question contains two elements distinct in kind, namely, a dynamical and a chemical problem: the former referring to the place where a poison acted, the latter to the molecular changes, which the presence of the poison in the blood gives rise to in

this fluid, or the tissue with which it is brought into contact. The former question came before him at present. It has formerly been shown that sufficient time always elapses between the application of a poison or its injection and the first symptoms of its action, to allow of its being carried to the brain, and also that contact of the poison with a large surface was not sufficient to give rise to any general symptoms, as long as its diffusion through the body is prevented. The author now proves, that in every instance the rapidity of action of a poison is in proportion to the rapidity of the circulation. With a view to this proof, experiments have been performed on different species of animals, in which the time required for the blood to circulate from one part to the other differed greatly. For should a poison which acts on the nervous system only produce symptoms when applied to the nervous centres, it must require a longer or shorter time before it shows evidence of its action, according as the circulation is more or less rapid, or the course which the poison has to run be longer or shorter. Experiments were performed by the author on horses, dogs, fowls, and rabbits, these animals offering extreme differences as regards rapidity of the circulation of the blood.

It is shown by experiments, that a substance injected into the jugular vein of a horse, arrives at the capillary termination of the coronary arteries in ten seconds; of a dog in twelve seconds; of a fowl in six seconds; of a rabbit in four seconds. Having made these statements, the author points out from experiments, that in these animals the time required for a poison to act is in proportion to such rapidity of the circulation; but also, that in every instance sufficient time elapses between the application of a poison and the appearance of the first symptoms of its action, to allow of its reaching the nervous centres.

The author concludes by noticing some facts which tend to establish a connexion between the chemical composition of substances and their physiological action; the chemical action on the blood of such salts as destroy the irritability of the heart; the analogous effects of salts of the same base; the analogous actions of isomorphous substances on the animal tissues, and the difference between the effects produced by poisons, according as they are derived from organic or inorganic substances.

ACADEMY OF SCIENCES.

Paris, May 31, June 7.

STATE OF THE URINE DURING PREGNANCY
AND DISEASE.

M. DONNÉ presented a paper, the object of which was to show that the urine of pregnant women generally furnishes certain characters by which the existence of pregnancy may be ascertained. From a great number of experiments, M. Donn  has ascertained that the urine contains much less free acid, phosphate and sulphate of lime, in pregnant than in other women. This circumstance modifies in a very remarkable manner the microscopic crystals of the salts contained in the urine, and enables us to determine with great probability, if not absolute certainty, the existence of pregnancy. M. Donn  has applied the method

successfully in more than thirty cases, at different periods of utero-gestation.

The author has also examined the properties of the urine in various diseases. In chlorosis the results obtained have been positive and very striking. Healthy urine, as we all know, contains a certain quantity of iron. In chlorosis all trace of the metal disappears; but as soon as we begin to administer the preparations of iron, it is again found in the urine. According to M. Donné, we cannot consider the cure of chlorosis complete, unless the urine contains its regular proportion of iron, some time after we have ceased to administer the remedy. In certain affections which bear some resemblance to chlorosis, but should be distinguished from it, the author found that the urine contained a considerable quantity of iron.

In cases of pulmonary consumption, a very curious fact was noticed; when the urine is evaporated, instead of leaving the ordinary crystals, it gives rise to a residuum of thick viscid matter, analogous to that extracted from diabetic urine. The author asks whether this be saccharine matter, or some animal substance, and confesses his ignorance on the point; the fact, however, is worthy of attention, especially since the observations of M. Rayer have established some analogy between diabetes and pulmonary consumption, by proving that the latter generally ensues on the apparent cure of the former. However, this appearance of the urine is so constant and remarkable, that it will often enable us to diagnosticate the existence of phthisis, even without seeing the patient.

The microscopic crystals of the urine in cases of typhoid fever are, in like manner, very peculiar. It is difficult to describe them in words, but they bear some resemblance to those obtained from phosphate of ammonia. This kind of crystals is never seen in a state of health; while, on the other hand, the author has never seen them absent in typhoid fever, during many years that he has turned his attention to this subject. Typhoid fever, however, is not the only disease in which they exist; similar crystals are found in cases of pneumonia and acute rheumatism.

In the concluding part of his paper, M. Donné points out a method of detecting bile in urine, much more delicate than the nitric acid test of Berzelius; this method consists in treating the fluid with ether, when, if it contain a very small quantity of bile, a yellow-green layer is formed on the surface of the urine. The author also mentioned the results of some experiments which he had performed on various animals. Milk of different qualities was injected into the vessels and great cavities of dogs, horses, goats, frogs, &c. Milk of good quality had no bad effect when mixed with the blood; while, on the contrary, unwholesome milk gave rise to various accidents, and sometimes occasioned death.

At the meeting of the Academy on the 7th of June, M. Donné communicated some observations on milk. Before the researches of the author, it was generally believed that milk is acid on being drawn from the breast; but M. Donné proved that the fresh milk of the human female, and of the female ass, is alkaline; as for the milk of the cow, some doubts still remained, because it is almost neutral, and has the curious property of both turning blue test-paper red, and of restoring the blue colour of paper that has been reddened

by an acid. Sometimes, indeed, cows' milk is acid; we then discover by the microscope, that the milk-globules, instead of floating separately in the fluid, (as is the case in healthy milks,) are collected together in little masses, and it seems probable that this change depends on the commencing coagulation of the caseum. In a recent case where it was a matter of the utmost importance to obtain perfectly pure milk, the author found this alteration in the milk of a cow which had been selected for her healthy appearance. The milk was acid, and the globules agglomerated.

ACADEMY OF MEDICINE.

June 8.

EFFECTS OF NARCOTISM IN SOME OBSTINATE CASES OF NEURALGIA.

FROM the results of M. Levrat's long practice, it would appear that many obstinate cases of neuralgia, in which every other remedy failed, were cured by administering opium, until it produced narcotism. This method appears, at first sight, a dangerous one, but, in the hands of a careful physician, it may be tried without apprehension. The following cases are cited by the author in support of this practice.

CASE I.—A man at one of the Lyons hospitals was attacked with very severe sciatica; the limb was reduced to one-third of its natural size; all the ordinary means were tried without effect. Opium was now given, so as to produce narcotism; the pain at once diminished, and, after a month's treatment, the patient was completely cured.

CASE II.—Madame Faure, 62 years of age, suffered from sciatica for three years. Three grains of opium were given before symptoms of narcotism manifested themselves. The result was the same as in the preceding case.

CASE III.—M. Moretti had been afflicted for many years with sciatica on the left side. He was unable to walk without crutches, and the limb was considerably atrophied. Every remedy was tried without producing any relief. Two grains of opium brought on symptoms of narcotism, as vertigo, nausea, injection of the face, &c. It now became necessary to bleed the patient twice, and as soon as he was able to explain himself clearly, he said that the pain had disappeared, and he felt nothing but a sensation of pressure. Two years have now elapsed, and the patient has remained well ever since.

CASE IV.—A lady, 42 years of age, laboured under nervous asthma, of long standing; she had undergone various methods of treatment without relief. M. Levrat, on being consulted, prescribed a pill composed of half a grain of opium and half a grain of belladonna. By mistake, however, the dose was carried to two grains of each. Two hours afterwards narcotism set in, and from that moment the suffocation and other nervous symptoms disappeared.

CASE V.—A commercial traveller had suffered so much from an old neuralgic affection of the left temple, that he attempted, in a fit of despair, to poison himself, and swallowed six pills, each containing a grain of opium and a grain of extract of lettuce. He was immediately seized with symptoms of narcotism, and was bled copiously to relieve the more urgent ones. Vomiting was afterwards

excited by tickling the back of the throat. This occurrence took place three years ago, and the man has never complained of any pain since.

TRACHEOTOMY IN CROUP.

M. Maslieurat communicated to the Academy two cases of tracheotomy performed in the last period of croup. In the first case the child was 22 months old, and seemed to lie in a state of complete asphyxia, so that it was thought that it could not possibly survive more than two hours. Before opening the trachea, the author waited until all hæmorrhage from the divided vessels had entirely ceased; on incising it, the air rushed in with a whizzing noise, and the child appeared to be restored to life at once. Having no canula by him, the author was compelled to use two pins, which he bent into the form of hooks, and having fixed the points in the edges of the wound, drew them apart by means of threads attached to the heads. This little patient got quite well.

The second patient, also, was an infant 22 months of age, but he was in a much more dangerous condition than the subject of the former case. When the trachea was opened the child lay lifeless, instead of recovering, and seemed to have ceased breathing. The author endeavoured to restore respiration by alternate pressure on the chest. After five minutes useless efforts the females in attendance retired, begging of him not to waste any more time on a dead body. Still, however, he persevered, and after a lapse of twenty minutes respiration was established; the child now had a fit of coughing, and expelled a long cylindrical mass of false membrane, bifurcated at its lower extremity; it soon began to sink after this, and died on the following day.

REMARKS ON THE VISION OF SOMNAMBULISTS AND MAGNETISED PERSONS.

M. Gerdy read a memoir on this subject. He had been present at six experiments. The first was performed on Mademoiselle Pigeaire, in the presence of MM. Arago, Orfila, &c. As soon as the apparatus was fixed on, the young lady commenced so many grimaces and contortions, on pretence of being affected with nervous movements, that she quickly displaced the bandage; however, as she was unable to see at the end of half an hour, Mr. Gerdy walked off. At a second interview she commenced the same manoeuvres, and, in addition, very coolly passed her finger under the bandage. After an hour and a half she announced that she could see; she now played cards and read from a book, but always placed the book and other objects *beneath* her eyes, and not in front of them. On removing the bandage it was now evident that the court-plaster had been loosened at its lower edge; M. Pigeaire pretended that these intervals were quite *insignificant*.

The second case examined by M. Gerdy was a young man of the name of Caliste; when he was magnetised, M. Gerdy placed a thick bandage over his eyes; he also commenced his grimaces, and with such success, that as fast as M. Gerdy arranged it, the somnambulist removed it with a grin. Fatigued at length by the perseverance of M. Gerdy, he announced, in spite of his sleep, that it was impossible for him to read, if people were constantly touching the bandage. For an instant or two he succeeded in telling a card, but

the faculty was annihilated the moment the bandage was replaced.

Finally, in the month of February last, the author assisted at an exhibition made by a young lady named Prudence; when she was thrown into the magnetic sleep, several pieces of court-plaster were applied over her lids; then a piece of membrane, and over the latter a piece of plaster; the whole had been moistened. After the lapse of ten minutes she took the cards, and in a quarter of an hour she began to distinguish them. This puzzled M. Gerdy a little at first, but he soon discovered that as the court-plaster dried, it left small intervals through which the light entered. Reflecting, moreover, on the fact that we can read through a single pinhole in a card, M. Gerdy betook himself home, and instituted a series of experiments with a friend. Pieces of court-plaster were placed over their eyelids by a *warm advocate* of animal magnetism, exactly in the same way that they had been placed on Miss Prudence; to the amazement of the magnetiser, they could distinguish the cards perfectly well, and read a book. Numerous experiments were now made, and it was discovered that vision could be easily exercised through an opaque body, provided its edges did not pass much beyond the circumference of the orbit. This species of vision is much favoured by any considerable degree of presbyopia, and still more so by nyctalopia; in fact, M. Gerdy and his friends soon became so expert as to see much better than Miss Prudence or her accomplices.

FOREIGN MEDICAL LITERATURE.

COMPOSITION OF FALSE MEMBRANES.

In the admirable article, by M. Andral, which we published in a late number of this Journal, it was clearly shown that the quantity of fibrin in the blood is increased during inflammation, and that the proportions of this substance bear a close relation to the different degrees and stages of the inflammatory affection with which it is connected. Some recent researches on the composition of false membranes, by M. Lassaigne, throw additional light on this interesting subject.

I have already (says M. Lassaigne) shown that the false membranes which are thrown out on mucous membranes in a high state of inflammation, are not composed of coagulated albumen, as many anatomists have supposed, but formed chiefly of a large proportion of fibrin, mixed with some soluble albumen, and moistened by a yellow coloured serum, containing all the organic and inorganic elements of the blood. I have, more recently, examined the false membrane in a pig labouring under pseudo-membranous angina, and obtained the same results. The false membranes, obtained from this source, were white with a yellowish tinge, slightly elastic and extensible. On submitting them to pressure I obtained a viscid yellowish fluid, which turned test-paper blue, and coagulated under the influence of heat and mineral acids.

A portion of the false membrane was frequently washed in cold water, to remove all the soluble matter; the residuum was a white substance, which presented all the physical and chemical characters of fibrin extracted from the blood. When digested

with weak acetic acid, it became swollen, then transparent, and was entirely dissolved on the application of gentle heat. The solution, when saturated with caustic potass, threw down white flocci, which were again dissolved by an excess of the alkali. Concentrated sulphuric, nitric, muriatic acids, and the solution of the ferro-cyanuret of potassium, threw down a white precipitate, as they do with the acetic solution of fibrin.

The water, in which the false membranes were washed, was now evaporated, and there remained flocci of coagulated albumen; on continuing the evaporation, to dryness, there remained a saline residuum, composed of chloride of sodium, carbonate and lactate of soda, and a little phosphate of soda, salts which exist in solution in the serum of the blood.

From these facts we may conclude, 1st. That the false membranes thrown out by serous and mucous membranes in a state of inflammation, are principally composed of the fibrin of the blood. 2. That this principle, being separated from the circulating fluid, together with a small quantity of albumen, becomes organized, and thus gives rise to the morbid products alluded to.—*Journal de Chimie*, June, 1840.

POISONED CONFECTIONERY.

Many years ago, Dr. O'Shaughnessy drew public attention to the fact, that many confectioners in London were in the habit of selling comfits, lozenges, &c., which were coloured with poisonous substances. The same practice exists in France, and, from the universal custom of giving *bombons* as new-year's presents, is frequently attended with the most mischievous results. On the first of January, 1840, for example, the town of Beziers was thrown into the utmost confusion by the occurrence of a great number of cases of poisoning from coloured confectionery. The judicial authorities interfered, and ordered an investigation, when it was found that the green comfits, &c. were coloured with an excessive quantity of arsenite of copper, and the yellow pastilles with a small quantity of chromate of lead.—*Ibid*.

OPERATION FOR THE CURE OF LEUCOMA.

M. Guepin, professor at the School of Medicine of Nantes, has recently described (what he conceives to be) a new operation for the restoration of vision in certain cases of albugo and leucoma. It is well known, that from various accidents a portion of the transparent cornea is liable to become opaque, and should the pupil be placed immediately behind this opaque spot, vision is completely lost. To remedy this defect, M. Guepin proposes to bring the pupil towards the clear portion of the cornea, and fix it there. The patient being placed in the same position as for the operation for cataract, the surgeon passes the point of a narrow concave knife into the transparent part of the cornea, at its junction with the sclerotica, and brings it out at another point about two lines off, thus making a very minute incision, which should occupy, if possible, the inferior edge of the cornea. In some cases this incision is all that is required, but, generally speaking, it will be necessary to excise a small flap of the cornea, which may be done with

the scissors. The iris commonly protrudes through this small opening; but should this not occur, M. Guepin rubs some extract of belladonna on the eyebrow, in order to produce hernia of the iris. On the third or fourth day he cauterises the protruded membrane slightly, to excite inflammation and adhesion. This operation is much more simple than that for the formation of an artificial pupil, and should be performed, according to M. Guepin, whenever one third of the cornea remains transparent. The author has employed it with complete success in two cases where vision had been lost from large spots over the cornea.—*Journ. de Med.*, April, 1841.

NERVES OF THE UTERUS.

THE following description is given by Dr. Robert Lee of the nerves of the gravid uterus, in the sixth month.

Behind the uterus, the aortic plexus divides into the right and left hypogastric nerves. These nerves soon subdivide into a number of branches, to form the right and left hypogastric plexus. Each of these plexuses, after giving off several branches to the ureter, rectum, and uterus, descends to the side of the neck of the uterus, and terminates in a large oblong ganglion. The left hypogastric plexus first sends off from its upper and anterior part some small branches to the ureter. About midway between the aortic plexus and the ganglion at the cervix, the hypogastric plexus sends off several considerable branches directly into the upper part of the cervix uteri, which spread out under the peritoneum of the body of the uterus. The hypogastric plexus then gives off a large branch, which passes between the ureter and the uterus, to the trunks of the uterine veins and artery. This branch enlarges and becomes thin and broad as it approaches these vessels, and terminates in a great plexus of nerves, which completely encircles them. This plexus is joined below by several branches, which proceed from the anterior and superior part of the ganglion, and which pass on the outside of the ureter to the plexus, around the vessels. From the inner surface of the ganglion, several branches go to this plexus, which run on the inside of the ureter, so that a root of nerves surrounds the ureter, as well as the uterine artery and vein. From the plexus surrounding the vessels, three large trunks of nerves proceed upwards with the vein to the upper part of the uterus, enlarging as they ascend. The posterior branch sends off in its course smaller branches, which accompany the ramifications of the uterine vein, on the posterior surface of the uterus, and spread out upon the inner surface of the peritoneum. Passing upwards beyond the junction of the spermatic with the uterine vein, and running between the peritoneum and a great plexus, situated on the body of the uterus, it spreads out into a web of thin broad branches and slender filaments, some of which are inserted into the muscular coat and peritoneum, and others follow the veins and arteries to the fundus uteri, and pass with the vessels into the muscular coat of the organ.

The middle and anterior branches closely adhere to the uterine vein as they ascend and form

around it several plexuses which invest the vein. From these plexuses, branches are sent off to the anterior surface of the uterus. These nerves ascend and closely unite with the great transverse plexus on the body of the uterus.

This plexus on the left side arises near the mesial line on the back part of the uterus, midway between the fundus and cervix, from a mass of fibres which adhere so firmly both to the peritoneum and muscular coat, that it is difficult precisely to determine their arrangement. From these fibres, the plexus proceeds across the uterus, in the form of a thin web, to the point where the spermatic vein is leaving the uterus. After closely uniting with the nerves accompanying the uterine vessels, this plexus proceeds outwards to the round ligament, becoming less firmly adherent to the peritoneum, where it unites with a plexus on the anterior surface of the uterus, and spreads out into a great web under the peritoneum. This plexus is loosely attached through its whole course to the subjacent muscular coat, by soft cellular membrane.

From the second, third, and fourth sacral nerves, but chiefly from the third, branches pass into the posterior border of the ganglion at the cervix, and are lost in its mass. From the inner surface of the ganglion, numerous small white soft nerves are given off to the neck of the uterus, some of which ramify under the peritoneum, and others pass deep into the muscular coat. From the anterior and inferior borders of the ganglion, many large nerves are given off to the bladder and vagina, and from its posterior margin to the rectum.

On the left side, the spermatic nerves form a plexus around the spermatic artery for about two inches from its origin. A small branch is then sent off from the spermatic artery to the ureter, accompanied with some filaments of nerves. The spermatic artery then passes down between the spermatic veins, and some of the nerves, leaving the artery, get on the outside of the veins, and numerous filaments are observed ramifying on the coats of the veins, and also upon the absorbents, and forming loops around them. Branches of nerves are then sent to the Fallopian tube, and to the ovary, at the base of which a great plexus is formed. The spermatic nerves then appear to enlarge as they proceed towards the uterus along with the artery and veins, and in their course filaments are sent to the peritoneum, and with the veins of the ureter. Some filaments pass down along with the spermatic artery to anastomose with the nerves accompanying the uterine arteries and veins, and other branches pass to the round ligament, and to the great plexus on the body of the uterus.

On the right side of the uterus the distribution of the hypogastric, spermatic, and sacral nerves does not differ essentially from that now described as seen on the left side. The form and situation of the great plexuses on the body of the uterus are, however, more distinct, and it presents the appearance of a white pearly fasciculated membrane, about a quarter of an inch in breadth, proceeding from the mesial line at right angles to the nerves accompanying the blood-vessels, across the body of the uterus, to the round ligament, where it unites with a plexus on the anterior surface of the uterus. Numerous branches are sent off from the

upper and lower borders of the posterior plexus to the muscular coat of the uterus. An extensive and intimate union at various points is distinctly perceptible between the branches sent off from this plexus and the branches of the nerves accompanying the uterine arteries and veins, and those which proceed from the hypogastric plexus and cervical ganglion to spread out and form a great nervous web under the peritoneum, on the posterior surface of the uterus.

On the anterior and upper part of the neck of the uterus, there is a great mass of reddish-coloured fibres, firmly interlaced together, resembling a thin broad ganglion of nerves, into which numerous large branches of the hypogastric nerves on both sides enter, and to which they firmly adhere. From the upper part of this fibrous substance there passes up under the peritoneum, over the whole anterior surface of the uterus, a great plexus, the branches of which pass into the muscular coat, or unite with those nerves proceeding with the blood-vessels to the upper part of the uterus. Prolongations of this plexus also extend to the round ligaments, and some of its filaments unite with those of the spermatic nerves.

[We may here mention that we have seen the beautiful dissections of Dr. Lee, and are convinced of two facts,—1st, that the nerves of the gravid uterus undergo a very remarkable and manifest degree of development; and, 2nd, that the greater part of the filaments displayed in the dissections of Dr. Lee are *nervous* filaments, and not fibrous or cellular tissue.]

REPRESENTATIVE OF THE MEDICAL PROFESSION IN PARLIAMENT.

A highly numerous and influential meeting of medical practitioners was held at Morrison's Hotel, Dawson-street, at three o'clock, on Saturday last, the 12th inst., for the purpose of considering the best means of ensuring the return of a member of parliament to represent the interests of the profession.

On the motion of Richard Carmichael, Esq., seconded by Dr. Apjohn, Abraham Colles, Esq., M.D., was called to the chair.

It was then moved by Dr. Thomas Byrne, and seconded by Dr. Peebles,

That Francis White, Esq., be requested to act as secretary.

The Secretary observed, that he would commence the proceedings by reading the requisition, which authorised the calling of the meeting, and which was signed by 78 influential practitioners, whose names it would be unnecessary for him to announce. They would be afterwards addressed by several gentlemen, who would detail the objects of the meeting, and who would propose the several resolutions. The requisition was as follows:—

"We, the undersigned, request a meeting of medical practitioners desirous of sending a member to parliament, for the purpose of advocating the interests of the profession, to consider the steps most likely to attain that object."

The Chairman having addressed to the meeting some introductory observations,

Professor Jacob moved,

"That while the medical profession is now entirely unrepresented in parliament, the pecuniary and personal rights of the members are frequently made the subject of legislation. That such is not the case with respect to other classes of the community; and that it is the opinion of this meeting that efforts should be made to procure the return, to the House of Commons, of one or more representatives of the interests of the medical profession."

The learned gentleman then proceeded to show, that the pecuniary rights of our profession have been either neglected or positively sacrificed by legislation—that the income which we derive from the profession has been diminished by the negligence or ignorance of legislators, and that our interests have been actually invaded by the operation of positive enactments.

He calculated the number of professional men in the United Kingdom at 20,000; their annual income at from three to five millions a year; and then asked, Is it to be endured that a body of educated men, capable of exercising a most powerful influence on the destinies of society, amounting in number to 20,000, and with an income of from three to five millions annually, are to have their interests wholly overlooked and neglected, or actually invaded by the legislature, without having any means of seeking redress?

Professor Jacob next pointed out several acts of parliament, the operation of which was extremely injurious to medical men, and particularly noticed the Coroner's Act, and the regulations affecting medical witnesses in courts of law. Medical charities' bills, coroner's bills, vaccination bills, poor-law bills, and many others, have been passed within a recent period, and not one which came to maturity had the slightest beneficial operation, with the exception of the anatomy bill, which we all acknowledge to have been of use, and which we owe altogether to Mr. Warburton. Every other interest is represented in the House of Commons except the medical. The medical profession alone is unrepresented; and it is a remarkable fact, (said Dr. Jacob,) that in the House of Commons there is not a single man capable of honestly advocating the interests of the medical profession. (Cries of hear, hear, hear.) There may be men found to advocate a party, or the interests of some individuals in the profession, but we cannot find a man who is capable of standing up for the rights of the body at large.

Dr. Ireland seconded the resolution, and pointed out another instance, in addition to those mentioned by Dr. Jacob, of the insulting manner in which the profession is treated by the legislature. He alluded to the bill of last session, which requires the medical man to attend as an assessor or judge to decide on the sanity or insanity of supposed lunatics. Medical men are very often obliged to devote a considerable portion of their time to such subjects, and are then compelled to sign a decision which places them under very great responsibility; but when they afterwards apply for payment for their services, they are told that the act makes no mention of any remuneration to them for such services, and that if the legislature intended they should be paid, it would be expressly mentioned in the act.

Dr. Ellis moved the next resolution, to the effect,

"That the growing extent and importance of many interests, as the commercial, colonial, manufacturing, &c., in which labour forms a principal element, require, even as a matter of commercial prudence, that the health and strength of the community should be provided for by special legislation. That such legislation has been frequently entered upon, but seldom successfully, and that the blunders and failures exhibited in this branch of our jurisprudence may be often directly traced to the want of medical knowledge and experience in the legislature. That it is, therefore, in the opinion of this meeting, necessary for the public welfare that the medical profession should be represented in parliament."

Dr. Maunsell, in seconding this resolution, said it was necessary to show that their meetings and their agitation were not for mere trade or professional purposes. He repeated what he had frequently, before declared, that if the end of medical agitation was to be only the advancement of their peculiar profession, he (Dr. M.) would never have been a medical politician. It was his opinion, and he thought it could easily be shown to be a correct one, that in parliament, medical men could act the part of useful citizens; nay, more, that it was absolutely necessary for the public good that some medical men should have seats in the legislature. He would ask, did not each of the interests referred to in the resolution include the consideration of matters which could not be safely legislated for without the aid of medical knowledge? Take the commercial interests, and, as connected with it, look at the quarantine question. It was the fact, that commerce was capriciously interfered with by the establishment of various quarantine periods—of five, ten, twenty, or thirty days, often without any definite grounds or reason for the variation. He did not mean to argue against quarantine; but he meant to say that every regulation on the subject had for its basis a medical point of extreme nicety—the duration of the latent period of disease. Was it unreasonable, then, to suppose that a legislative body, including some medical knowledge and experience, should be the fittest to frame such regulations? To take up another commercial subject: it was provided by law that under certain circumstances merchant ships should be provided with medicine chests. Now, he (Dr. M.) would ask the meeting, could a more dangerous provision be made than a medicine chest without a doctor? Any one who knew the habits of merchant captains and sailors, would agree with him in thinking that no more effectual mode of injuring the health and efficacy of a crew could be devised than giving them the unlimited command of dangerous drugs. Even in the present session, many matters involving questions of public health had been mooted—there had been a factories bill, a vaccination bill, and two or three bills for the improvement of the health of towns; and although all these spoke well for the benevolent intentions of their authors, still no medical man could examine any one of them without seeing that a little medical knowledge would have been of use in their construction.

Dr. Maunsell then referred to the Poor-law Act and workhouse test, and concluded in the following terms:—He feared he had trespassed too long upon their patience, but he could not conclude without noticing a sentiment broached by the gen-

tleman who had preceded him—that one of their own profession would not be the best fitted or most proper person to represent them in parliament. He hoped what he had already said would be taken as proof to the contrary. As to fitness, and as to the propriety of a medical man's going to parliament, he must be allowed to correct a mistake, into which many persons fell, in supposing that a lawyer was following out his profession while in parliament. A lawyer no more did so than would a physician. Mr. Litton or Mr. O'Connell as much sacrificed their professional pursuits by going into parliament, as any gentleman then present would do. It was true, that gentlemen of the law had places to obtain, by engaging in politics, which medical men could not look to; but in the exact ratio in which men were freed from the blighting curse of place-hunting, in the same measure were they fitted for the duties of legislators. (Hear, hear.) He had shown that medical men could be of use to the public; in parliament he hoped some of them would not be found disinclined to make sacrifices in that good cause. Examples were not wanting of their having done so. Dr. Radcliffe, perhaps one of the most extensive practitioners who ever lived, served in several parliaments. Dr. Clements for many years represented the University of Dublin, and the truest-hearted Irishman that perhaps ever sat in the House of Commons was Dr. Lucas. (Hear, hear.) He hoped that these examples would again be followed, and if they were, as the result of the present meeting, he would say, that the medical profession of Ireland would have secured for themselves by their proceedings this day the character of public benefactors. (Loud cheers.)

Dr. James Bowen Thompson begged to suggest, that it would be advisable to leave the amount of any subscription that might be entered into, perfectly free and open. From the proceedings of the day, he thought they might at no distant period look forward to the attainment of all their objects; and calculate soon upon having a member of their body at the other side of the Channel, who would pay all attention and due respect to the wants and many grievances of the profession in this country, and who would be able to meet the dexterous and wily sophisms of that would-be medical reformer, the editor of the *Lancet*. (Hear, hear.)

Sir James Murray proposed,

"That inasmuch as the medical profession is composed of persons holding various political opinions; and as the present system of representation precludes the possibility of returning a perfectly neutral member to parliament; we feel it right to declare, that in any support which we may give a candidate whom we may agree upon as fitted to represent our professional interests, we do not in the slightest degree pledge or compromise our respective private political opinions."

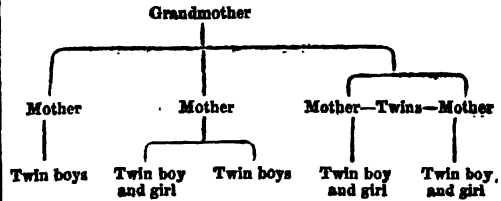
Finally, it was proposed by Dr. O'Grady, seconded by Surgeon Palmer—

"That the following gentlemen be requested to act as a committee, for the purpose of carrying out the object referred to in the first resolution, with power to add to their number, viz.:—Mr. Colles, Mr. Kirby, Dr. Maunsell, Dr. Ireland, Dr. Brereton, Dr. Jacob, Mr. Carmichael, Sir J. Murray, Dr. Macdonnell, Mr. White, Mr. Williams, Dr. O'Beirne, Dr. O'Grady, Abraham Palmer, Esq."—*Dub. Med. Press.*

NOTE ON AN HEREDITARY TENDENCY TO A PLURALITY OF CHILDREN.

By HENRY RAYNES, Esq., Surgeon.

I ATTENDED a parturient female the other day of twins; she informs me that she and one of her sisters are twin sisters, and that this same sister as well as herself has given birth to twins; she has two other sisters, not twins, they also have each of them had twins, and one of them has even had twice twins. So that there are four daughters in one family, all of whom have had twins once, and one of them has had twice twins: two of the daughters were themselves twins.



*Gringley on the Hill, near Bawtry,
June, 1841.*

OBITUARY.

WE have to announce, with regret, the death of Dr. Charles Lendrick, Queen's Professor of the Practice of Physic in Ireland, which took place, suddenly, at Ashford, in the county of Wicklow.

ITCH OINTMENT.—The following ointment is used with much benefit, at the hospital of St. Louis, for the cure of itch, which it effects in eight to fifteen days. The disease ceases to be contagious after the first few days of its employment.

Lard, one ounce,
Subcarbonate of potass, } of each, 90 grains;
sulphur } mix well together.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, June 11, 1841.—Joshua Barlow, John Bennett, Robert Smith Davison, Henry James Shirley, Matthewson Corry, Samuel Adamson Homan, John Franks Chittenden, Charles Futford, William Thomsett, Charles Day, Michael Daniell, John William Moore Miller.

Printed by THOMAS ISOTSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JOSIAH PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMSEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, June 14, 1841.

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COURSE OF CLINICAL LECTURES

ON

SURGICAL DISEASES.

DELIVERED AT THE HOSPITAL OF LA CHARITÉ
BY PROFESSOR VELPEAU.

LECTURE VI.

ON PURULENT ABSORPTION.

GENTLEMEN,—Amongst the secondary consequences of wounds which are either the result of accident or of surgical operations, one of the most dangerous is metastatic abscess, or, as I shall term it in course of this lecture, purulent absorption. This is a subject upon which I shall address you at considerable length, on account of its importance, and frequency; the great danger by which it is accompanied; the inefficacy of the means employed in the treatment, and the variety of opinions entertained by medical men on it. Besides, I am naturally led to an examination of this interesting topic, by the pathological specimens which you here see; they are the liver, lungs, heart, and inferior extremity of a man who had compound fracture of the leg. The patient had been about a month in the hospital; during the first twenty days he seemed to be doing well enough, but he was then seized with violent rigors, which continued for several hours every day, followed by copious, viscid perspirations. These rigors presented, for some time, the characters of intermittent fever, but soon gave way to a state of adynamia; the eyes became sunken; the skin of a deep yellow tinge; the tongue and teeth were covered with a dark crust; the man complained of severe pain in the right hypochondrium; the pulse was hard and frequent, but gradually became more and more feeble; delirium and coma now supervened, and the patient sank in eight or ten days after the first appearance of the symptoms. You may remember, perhaps, that when the patient was admitted into this hospital, the limb was considerably swollen; the tumefaction depended on an infiltration of blood which frequently occurs in cases of fracture; I draw your attention to this circumstance, because, although of little importance in cases of simple fracture, it often gives rise to the most dangerous accidents, when the fracture is complicated with a wound of the integuments.

You here see the lesions which exist in the principal organs of the body; the source of these lesions, however, is very circumscribed; we cannot find any trace of phlebitis in the large veins of the lower extremity, but we must examine more carefully those of the bones; the joints contain no pus or marks of inflammation; but look at the liver, it is full of abscesses; the lungs, also, contain a number of purulent deposits; at other points we have a number of livid spots, resembling

petechiæ, and some of these contain in their centre a few drops of pus; in other points we have collections of flaky matter, and some of the deposits seem to be enclosed in cysts. The tissue of the lung around these different abscesses is quite healthy; the other organs of the body are free from alteration.

Purulent absorption, gentlemen, may occur after very insignificant wounds, as well as after the most extensive injuries; its progress, also, is exceedingly varied. Sometimes the disease commences with violent rigors, amounting occasionally to actual trembling. The rigors may continue for several hours together, but sometimes they represented by slight shivering, or a sense of cold, which may be general or confined to the extremities. The skin becomes of a faded colour, yellowish or bluish, and in some cases (but commonly at a latter period) assumes a deep jaundiced tinge; the symptoms of reaction are very imperfect; the heat is unequal, the perspiration clammy. Such is the first period of this disease, resembling, as you see, an access of pernicious intermittent fever. The accesses now recur at various intervals; they soon, however, give way to a state of prostration, indicated by the usual symptoms; the breath is sometimes fetid, and exhales an odour of pus; in many cases we have signs of inflammation affecting some of the principal viscera. The patient may cough and complain of oppression with pain in the chest; in other cases the pain is felt in the right hypochondrium or in the right shoulder, the skin of which is of a yellowish colour; the pain, again, may attack one or all of the joints, and simulate rheumatism; there is frequently an inclination to vomit, with dry red tongue, and signs of inflammation of the intestinal canal; in other cases small tumors, collections of pus or red spots rapidly passing into gangrene, appear on different parts of the body in quick succession; the conjunctiva may become swollen and injected, and the eye destroyed by purulent inflammation.

During the development of these constitutional symptoms, the aspect of the wound undergoes a remarkable change; the process of cicatrization is arrested; the surface of the wound becomes pale; the pus is thin and of a greyish colour, or suppuration may be completely suspended; the wound looks dry; the surrounding soft parts are shrunken; the muscles become detached from each other and from the bones, as if their uniting cellular tissue were destroyed; at a later stage, obstinate hæmorrhage takes place from the surface of the wound, and the blood is extremely fluid; finally, the patient sinks in 8, 10, 15, 20, or 40 days after the invasion of the symptoms. The patient, I say, sinks, for death is the rule, recovery the exception.

On examining the bodies of persons cut off by this disease, we find a variety of morbid appearances. The skin presents a yellow, jaundiced hue;

at different points there are livid spots, gangrenous patches, pustules or purulent bullæ, or true cutaneous abscesses.

Arteries.—The arteries contain a small quantity of fluid blood; M. Teissier assures us that he has frequently discovered pus in the clots contained in the left side of the heart.

Veins.—The venous blood is more evidently altered than the arterial. The clots are here and there tinged with black, yellow, or white spots, and have a granulated texture; they sometimes contain globules of pus, which may be distinguished by the naked eye; in some cases we find collections of purulent matter in the centre of the large venous clots of the heart or principal veins. I have seen these deposits in the iliac and uterine veins; in the two cavæ, and in the different cavities of the heart; several of them were evidently recent; others were of older date, but we could trace no connexion between them and the state of the vessel in which they were contained; the contrary, however, holds good with respect to the wound; here we very frequently find the veins inflamed and containing pus; the lesion may extend a considerable way toward the heart, but almost always the venæ cavæ are intact. M. Teissier asserts that in all cases of purulent phlebitis the calibre of the vessel is obliterated by adhesive inflammation, and that the pus contained in the vein can never enter the circulation.

Lymphatic vessels.—The lymphatics may contain pus; upon this point all observers are agreed. Sometimes the inflammation has only commenced; the cellular sheath which incloses them is deeply injected, and contains a serous or sero-sanguineous fluid; in other cases they are considerably enlarged and knotty; the tunics of the vessels are thickened, and they contain either pus, or a purulent fluid, or greyish clots, resembling coagulated lymph. According to M. Teissier, these clots obliterate the lymphatic vessels beyond the limits of the inflamed part, as they do in cases of phlebitis. The lymphatic ganglia, also, may be diseased; tumefied, red, or softened, and in a state of suppuration; the pus is contained in the centre of the gland, or found on its surface; and what is worthy of remark, the ganglia may contain pus without our finding any trace of inflammation in its lymphatics, and *vice versa*. This suppurative inflammation of the lymphatic vessels chiefly occurs after delivery, after dissecting wounds, ulcers on the legs, &c.

Cellular tissue.—In cases of purulent absorption, we frequently remark serous or purulent infiltration into the cellular tissue, giving rise to œdema, diffuse phlegmon or abscess. Sometimes we find enormous collections of pus in the trunk or extremities, either deep-seated or superficial; the pus may be collected into a series of isolated abscesses, or be infiltrated through the whole cellular tissue of the limb.

Muscles.—The muscles may be affected in a similar manner. Collections of pus have been found in the diaphragm, heart, and muscles of the extremities; the deposits form with great rapidity, and the tissue surrounding them presents little traces of inflammation.

Joints.—Any of the joints may be filled with pus, yet when we wash away the matter, it is impossible to say that the joint has been diseased; the cartilages, ligaments, capsular envelopes, &c. are free from all trace of inflammation.

Bones.—When the source of purulent absorption exists in the bones, we may find pus diffused through their tissue, or in their veins, and hence we should examine them with particular care. In cases of contusion, of wounds, and compound fracture, we find these collections of pus in the different tissues of all the bones, and particularly in the medullary tissue. Osseous phlebitis has not been long known to us; we should therefore take every opportunity of studying this part of the subject with the utmost care.

Viscera.—Metastatic abscesses in the viscera vary from the size of a flax-seed to that of hens' eggs. They are frequently formed with astonishing rapidity, yet give rise to no local symptoms. In the lungs, and indeed in the other viscera, they are generally round, and contain in the centre some fluid pus; in other cases they contain a bluish fluid resembling serum mixed with caseous clots. As we recede from the centre of the abscess towards its circumference, we find that the contained matter becomes less fluid, and externally it is gradually mixed up, and combined with the surrounding tissues, which are quite healthy, beyond the limits of the abscess. In some rare cases, the deposits are entirely composed of a concrete matter, which give them a certain degree of resemblance to tubercles when about to soften. In the liver we find, occasionally, very extensive purulent deposits, and this occurs principally in connexion with wounds of the head. The abscesses present a great variety of appearances, which I shall briefly describe to you. When the contained matter is fluid, it may be composed of a serous-looking liquid mixed with albuminous flocci; in other cases, we find genuine pus of various tints. The solid abscesses are composed of concrete masses; some of them are softened in the centre, but at the circumference are very firm, and intimately adherent to the tissue of the liver; in other cases, the matter is evidently concrete pus, or masses of an homogeneous substance of a white or yellowish colour, and when divided, presenting many of the appearances of scirrhus tissue.

I have found metastatic abscesses, also, in the heart, brain, kidneys, &c., but the only circumstance worthy of note is, that no trace of inflammation existed in the tissues surrounding them.

By carefully examining the different forms and varieties presented by these collections, I think that I have discovered the mode of development of several tissues called accidental. Thus it appeared clear to me that between these collections which contained fluid pus and the most solid masses, the only difference was one of form; the latter had passed through the different stages of the former. The metastatic collections in the lungs, for example, frequently presented all the appearances of tubercles in a state of softening; the same thing occurred in the liver, where the solid masses could scarcely be distinguished from scrofulous tubercles or scirrhus tumors; and I am firmly convinced that, had these patients survived, we should have afterwards have found, on examining their bodies, alterations which the most skilful pathologists would have been unable to distinguish from tubercles or scirrhus tumors.

Besides, it is easy to explain these different degrees of the same disease in the same subjects. The pus may remain fluid in some points, while

at others it may coagulate more or less rapidly into caseous masses; or if its particles become more intimately united, it may form the homogeneous masses already alluded to. It is in this way that I would explain the formation of one species of tubercle under the influence of inflammatory action, and the production of some other accidental tissues. An altered state of the fluids seems to be the chief agent in these cases; the pus is absorbed from the points primitively engaged, and is deposited in different parts of the body. The abscesses are usually discrete; that is to say, separated from each other by tissue completely healthy, and when the pus has been removed from the cavities, you would say that the organ had never been attacked by any disease. In some cases we find pus, or puriform mucus, in the nasal fossæ and frontal sinuses; in others the larynx and amygdalæ contain small abscesses, or are extensively infiltrated with purulent fluid. The spleen, kidneys, and uterus, also, may be the seat of metastatic abscess, purulent infiltration, softening, &c. The digestive organs may present various alterations; the mucous membrane of the stomach and intestines has been found extensively softened; the parietes of the œsophagus, stomach, or intestinal canal, studded with small abscess. Such, gentlemen, are the principal morbid appearances which we observe in cases of purulent absorption. On resuming this interesting subject, I shall relate to you several cases, and comment upon them.

OBSERVATIONS ON GLANDERS.

(Read before the Parisian Medical Society, April 29, 1841.)

By J. R. BRUSH, M.D.

ASSISTANT-SURGEON TO THE 26TH CAMERONIANS.

(Concluded from p. 227.)

WITH regard to the two cases which I am about to relate, and which occurred at St. Bartholomew's Hospital the same year as the two foregoing, I regret much that I have no notes with me, but will, nevertheless, endeavour to give them as nearly as I can from memory.

CASE III.—The first was that of a man admitted into the hospital for a suspicious-looking tumor situated on the left side of the face, and believed at the time to be of a malignant nature. On first seeing this man, I was struck with the resemblance which this tumor bore to the swelling on the face of the man John Smith, already cited. This tumor, which had a livid aspect, was ulcerated in several points, and gave vent to a sanious discharge. It extended from the anterior border of the masseter muscle towards the left nostril, which was implicated in the disease, and from which there issued a thick tenacious purulent discharge, which adhering to the entrance of the nostril, completely blocked it up. The antrum appeared likewise to be implicated. The fœtor from the diseased surface was intolerable, and similar to that in the case of John Smith. The appearance of the facial swelling, in both, had so close a resemblance to each other, that I immediately stated to the surgeon who had the care of the patient, my strong suspicions that it was a case of glanders. This gentleman replied, that on first seeing the

man, the same idea had struck him, but that on questioning the patient, he denied ever having had anything to do with horses. Moreover, the disease had commenced about four months previous to his admission, by pain, and a slight swelling on the side of the nose, over the situation of the antrum, and had gradually increased to its present magnitude, which was about the size of a small orange. This statement he had obtained from the patient; he had not seen the disease in its early stage; but, from present appearances, thought it was a malignant growth commencing in the antrum, and the discharge from the nostrils might be accounted for by the extension of the disease to that cavity; moreover, in the cases of glanders already recorded, when the disease had attacked the nares, it rapidly ran on to a fatal termination, accompanied at first with excessive irritation of the system, quickly degenerating into typhus, as was the case in John Smith; whereas in the present instance, the tumor had been very gradual in its growth, and the man appeared to suffer little, or not at all, as to his general health. These remarks, although they appeared to be extremely judicious, still did not deter me from making further inquiries as to the history of the disease, more especially as to the man's occupation, and whether there was any liability of his having been brought into contact with diseased horses, as the aspect of the tumor on the face appeared to me to differ from anything of the kind I had yet seen of a malignant or cancerous nature. In the course of my inquiries, I ascertained that the man had been employed for many years on the farm of one of the physicians attached to the hospital, situated about 30 miles from London, and whence he had come to the institution. On this farm there were employed a number of horses, with which, however, he had nothing to do till within about six months previous to his admission, when he recollected having had the care of them for a short time. During this period the horses were perfectly healthy, except one of them which had a slight cold and running from the nose, from which, however, the animal recovered. On asking him whether the horse had any ulcers in the nostrils, or enlargement of the submaxillary glands, he could not tell me, as he had not paid any particular attention to the case, considering it a simple cold, and that he had almost forgotten the circumstance. During his stay in the hospital, the tumor rapidly increased in size, the left eyelid became swollen, and a discharge of a thick purulent matter took place from the conjunctiva. The man complained also of great pain in the parts, and several times asked me, whether I thought he was labouring under *tic-douloureux*; this pain he described as having commenced with the swelling. The man, after remaining with us a few days, returned into the country. From the rapid extension of the disease during his sojourn in the hospital, I thought, whether it be of a malignant nature or glanders, it would soon terminate fatally, and I begged of the gentleman who employed him, that in case the man died, he would acquaint me with it, and obtain permission for me to make a *post-mortem* examination. This, Dr. Roupell kindly promised to do. About a fortnight after the man left the hospital, Dr. Roupell received a letter one evening, stating that the patient had died, and that he was to be buried on

the following day; and fearing that the opportunity might be lost, Dr. Roupell immediately went down into the country, and made the examination on the following morning. He had a well-executed water colour drawing taken of the diseased parts, which he showed me, and stated, from the examination he had made, that he believed the man had died of glanders. The tumor had assumed a deep purple or blackish appearance, and the disease had so disfigured the countenance, as to give it a truly hideous aspect.

CASE IV.—The next case was that of a man who was admitted into the surgical wards for a cutaneous eruption, accompanied with constitutional irritation. The eruption consisted of hard round tubercular bodies, scattered at wide intervals over the trunk, extremities, and face. Several of the tubercles were flattened at their apices, and ulcerated. The eruption bore a considerable resemblance to modified small-pox, but did not present the characteristic umbilicated depression in the centre, which will generally be found in some one or more of the pustules of the latter disease. The man stated that his occupation was that of a cab-driver, and that some months back he had bought a horse, which he knew to be glandered, and which he drove for some time. However, as there was no apparent affection of the nostrils, or any other of the symptoms indicative of glanders, the gentleman who saw the patient would not take it upon themselves, from the character of the eruption alone, to say that it was a case of glanders or farcy, more especially as small-pox was prevalent at that time in London: considerable doubts existed in the minds of all as to the nature of the affection. However, the man died, and at the *post-mortem* examination there were found several ulcers, or "chancres," as I think the French pathologists more properly designate them, situated on the Schneiderian membrane, and lobular pneumonia.

On going through the museum at the Ecole de Médecine a few weeks back, my attention was directed to some water-colour drawings presented by M. Rayer, in which this tubercular eruption was beautifully depicted; and without knowing at the time the nature of the affection, I thought, from the resemblance it bore to the eruption noticed in the cab-driver, that it was glanders. This proved to be so; the drawings were taken from the man Prot, the details of whose case were related by M. Rayer, and are to be found in the *Bulletin de l'Académie de Médecine* for 1836, Vol. I. p. 430. As this case is interesting, inasmuch as it first drew the attention of M. Rayer to the subject, and is a well-marked instance of the disease, I shall take the liberty of relating it to you; but, before doing so, will mention another instance of this affection, for the particulars of which I am indebted to M. Estavinet, the distinguished professor at Clamart, and a member of this society.

CASE V.—A subject was brought for dissection to the anatomical school at Clamart, covered with a peculiar eruption. M. Estavinet, seeing this, immediately stated that the man had died of glanders, and had the body removed to his private cabinet. He then sent for M. Rayer, and they both examined the body together, after which no doubt was left on the minds of either, that the man had fallen a victim to the disease. There were found in this patient small hard tubercles in

the lungs and beneath the pleura, a solitary tubercle on the pericranium and lobular pneumonia. M. Estavinet showed me specimens of the tubercular eruption taken from the skin of this subject, in their different stages of development, varying in size from a pin's head to a small horse-bean; the smaller of these closely resembled the sub-pleural miliary tubercles found in the man John Smith, and which are commonly met with in this affection both in the human subject as well as in the horse. I think we may justly infer that these tubercles, developed in the skin and on the pleura, as well as on the membranes of the brain and periosteum, are of essentially the same nature, but to prove their identity of structure would require them to be examined through the medium of the microscope; this I have not yet had the opportunity of doing. To obtain further particulars regarding this man, M. Rayer wrote to the Prefect of Police, from whom he ascertained that the man had been employed as groom in some stables where there was a glandered horse; that he had been in the habit of sleeping in these stables by the side of the diseased animal, and that he was exceedingly intemperate in his habits. It appeared also, that the man had been admitted into the hospital of La Pitié, where he died without the medical officers of that institution recognising the malady under which he laboured. I shall now relate to you M. Rayer's case already alluded to.*

CASE V.—A groom, named Prot, slept in a stable near a glandered mare. The animal died, the man fell sick. Removed to the Hospital of La Charité, into one of M. Rayer's wards, he presented, besides other symptoms, a pustular eruption on the skin, in the nasal fossæ, and in the larynx; ecchymoses and gangrenous eschars below the ear, on the glans penis, and on the feet; small abscesses in the lungs, large collections of pus in the substance of the muscles, and other symptoms commonly known by the name of typhoid.

This man fell a victim to the malady. On opening the body several lesions of structure were found, which M. Rayer presented to the society. These pathological specimens were; several pieces of skin covered with pustules which resembled in their form the pustules of echthyma and variola; 2. other portions of integument taken from the neck and from the penis, attacked by gangrene; the nasal fossæ covered with a pustular eruption; 4. the larynx, presenting a similar eruption; 5. several portions of the lungs containing small circumscribed abscesses; 6. portions of muscle infiltrated with a sanio-purulent matter, red, like blood mixed with pus.

Such are the material circumstances of the case. Now what was the disease under which Prot laboured? M. Rayer observed, in the first place, that nothing analogous to it was found in pathology. In effect, to what can one compare it? To typhoid fever? It presents, it is true, some resemblance to it, but to this it unites so many other symptoms which are foreign to the latter affection, and especially those which we have just recited, that this similarity is but slight when subjected to examination. On the other hand, it offers the greatest resemblance to one of the principal diseases, appertaining to veterinary pathology. This

* *Bulletin de l'Acad. de Méd. Feb. 14, 1837.*

disease, is acute glanders, an affection so common, and so formidable amongst horses. There are, in both cases, almost the same symptoms, and the same lesions of structure. The symptoms,—we have just seen in part. The lesions,—M. Rayer had taken care to place the remains of Prot by the side of the remains of a glandered horse.

After having collected the results of his observations, M. Rayer wished to know whether they would be verified by experiment. He took from his patient, while living, the matter of the pustules, and with it inoculated a horse, and this horse became glandered.

In the *Archives générales de Médecine* for the year 1838, will be found the following case of glanders, which bears considerable analogy to that of John Smith, and is interesting, inasmuch as an entire year had elapsed between the absorption of the poison into the system, and the death of the patient.

CASE VI.—M. Deville read before the Academy of Medicine a detailed account of an individual, who on the 6th of September, 1837, having pricked his finger in a stable, where he had the care of a horse affected with chronic glanders, was subject successively to several abscesses, at first in the finger, in the fore-arm, and then in the arm; finally, in different parts of the body during an entire year. About the month of August, 1838, he was troubled with an obstinate diarrhoea, which weakened him considerably. On the 28th of August, there appeared an œdema of the superior palpebræ and of the forehead, then of the face; gangrenous patches showed themselves on these parts, a discharge took place from the nasal fossæ, pustules developed themselves on the inferior extremities, and this unfortunate man died on the 6th of September, 1838, being that day twelvemonth on which he received the injury. At the autopsy, gangrenous patches were found on the face; the nasal fossæ were inflamed, and covered with very small pustules; on the cranium several erosions had eaten into and destroyed the tissue of the bone, which the specimen M. Deville showed to the Academy clearly demonstrated.

At the meeting of the Royal Academy of Medicine, 14th of February, 1837, M. Dupuy rose, and spoke on the subject of glanders. He stated that "he divided it into two species; chronic glanders and acute glanders. The first is no other than a tubercular affection, developed principally in the lungs. The tubercles are in great part formed of cretaceous matter, as is proved by the beautiful analyses of MM. Thénard and Lassaigne. It appears, therefore, that there are cases in which the system of the horse, like that of man, takes on the secretion of tubercular matter." * * * "It has been said," continued M. Dupuy, "that I reject the idea of the contagion of glanders; yes, of chronic glanders, but not of acute glanders."

The latter has no resemblance to, no analogy with chronic glanders, and I do not know why they have been called by the same name. But acute glanders has great analogy with the rot (*la clavelée*) in sheep, which itself is nearly allied to variola in man. Such is at least my opinion. It is not, I know it, that of most veterinary surgeons. I believe, nevertheless, that my opinion is very probable, and supported by the authority of Jenner, who, as all the world knows, first obtained the vaccine matter from the horse. Finally, we

know an affection in the horse which closely approximates to the rot, both in its external and internal characters; by its symptoms and by its lesions of structure. We have published examples of this. In 1835, we have given an instance of it, under the title of *eruption claveliforme* in a colt. I believe, then, that acute glanders is an affection essentially eruptive, and that this affection is essentially contagious. I have put it to the test of experience. By the side of glandered horses I have placed others, who were not affected, and they became so."

Finally, M. Dupuy proposes to give to acute glanders the name *coryza gangrenosa*.

At a subsequent meeting of the academy, M. Rayer, in reply to some observations made by M. Barthélemy on glanders, stated:—"I should say that the three symptoms which M. Barthélemy assigns to acute glanders, namely, the *nasal flux*, the *engorgement of the sublingual glands*, and the *ulceration on the pituitary membrane*, are not, in my opinion, the distinctive characters of the disease."

"I distinguish three forms of acute glanders: one with ecchymosis and gangrene of the pituitary membrane; a second, with eruption of pustules and ulcerations of the same membrane; and the third, a combination of the two first."

At a subsequent meeting of the Society, 7th March, 1837, M. Bouley commenced by pointing out the characters of chronic glanders and farcy, and distinguishing them from acute glanders and farcy. His remarks are confined to these affections, as they are observed in the horse.

"*Chronic glanders* is a tubercular affection, seated principally in the pituitary membrane. This malady, peculiar to the monodactyla, more commonly attacks the horse than the ass or the mule; it develops itself slowly, and becomes manifest, at first, either by a slight engorgement of the sub-lingual lymphatic glands, or by a whitish discharge which takes place more commonly from the left nostril; in a short time these symptoms augment in intensity, the glands become increased in size, harder, and appear to adhere to the maxillary bone; the discharge puts on a yellowish appearance, and adheres to the *alæ nasi*; the pituitary membrane becomes discoloured, and covered with small white spots, which are in fact tubercles in a state of crudity; finally, after a longer or shorter period, the disease is at its height, these tubercles soften, and numerous ulcerations are developed on the mucous membrane of the nose.

When glanders is local, that is to say, limited to the nasal cavity, the animal so affected preserves all the appearances of health, and might still do good service, if the laws of our country did not consider it affected by a contagious disease, and did not prohibit its running on the public thoroughfares.

On opening the body, we find the mucous membrane yellowish, slightly thickened and covered with a number of deep ulcerations, more or less numerous, which exist, especially along the venous canals, at the folds of the *alæ nasi*, and at the inferior surfaces of the spongy bones; the canals are ordinarily filled with pus, similar to that discharged by the animal; the membrane lining these cavities sometimes presents crude tubercles, but it is never ulcerated; the spongy bone contains a thick, caseous matter; lastly, the glands contain, especially at their circumference, softened tubercles,

a change of structure which we never find in acute glanders, and which alone is sufficient to distinguish these two diseases from each other.

Chronic farcy is not, perhaps, so well known as glanders. According to some, it consists in a chronic inflammation of the lymphatic vessels; according to others, in a peculiar alteration of the lymph. It manifests itself by tumors, more or less circumscribed, of various forms, which are always developed in the course of the lymphatics, and are the results of inflammation of the cellular tissue which surrounds these vessels. These tumors, which at first are painful, soon become indolent (*froides*), and indurated, remain for a longer or shorter period in this state, and end in softening. Whether they are opened by the knife, or become so of their own accord, there always flows from them a whitish pus, which excoriates the neighbouring parts, and is of an oily appearance, characteristic of this disease. The wounds which result from the opening of these tumors have no tendency to cicatrize, but, on the contrary, readily take on all the characters of true ulcers.

In the animals who die of this affection, we find the lymphatic glands indurated and filled with softened tubercles. We observe also in the farcy buds, changes of structure which vary according as they are in a state of crudity or ramollissement.

Finally, chronic glanders and chronic farcy have so great an analogy to each other, that often the one is only the prelude to the other. Nevertheless, farcy is generally less formidable than glanders, which latter is almost always incurable.

Let us now take a glance at the diseases which are improperly designated by the name of *acute glanders* and *acute farcy*. Under the name of *acute glanders*, two affections have been for a long time confounded, which we distinguish at the present day by the name of *acute glanders*, properly so called, and *gangrenous glanders*. The first, *acute glanders*, consists in active inflammation of the pituitary membrane, with the developement on this membrane of pustules, which ulcerate and give rise to a sanious discharge, more or less abundant. This malady, which is always accompanied by a painful engorgement of the lymphatic glands of the neck, is very contagious, and almost always terminates fatally. Horses of an irritable temperament, asses, and mules, appear more disposed to contract this disease than other animals.

At the commencement of this affection we remark, besides dulness and dejection, a saffron discoloration of the pituitary membrane. Soon afterwards we observe the appearance on this membrane of pustules, red at their base and whitish at their apices; a yellowish and sanious discharge then takes place from both the nasal cavities, and the glands of the neck become engorged and painful. At the end of two or three days, these pustules, which are more or less contiguous to each other, ulcerate; the discharge becomes more abundant and viscid; the posterior extremities, the prepuce, and the circumference of the nasal cavities, become engorged; the respiration, which was already impeded, becomes still more laborious; sometimes rounded, circumscribed buds are developed in the cutis vera, and rapidly suppurate; finally, weakness and marasmus are the finale of this affection, the ordinary duration of which is from eight to ten days, sometimes less, especially in irritable subjects.

On opening the bodies of these animals, we find deep ulcerations surrounded by a rounded areola; the pituitary membrane is in great part destroyed; the canals and the spongy bones contain matter mixed with blood. Sometimes, also, we observe on the mucous membrane of the larynx and trachea, pustules similar to those on the pituitary membrane. The glands are red, and infiltrated with serum; the subcutaneous cellular tissue presents serous infiltration and ecchymoses, especially at those points where congestion previously existed.

Sometimes this disease is complicated with chronic glanders, and terminates in it. Under these circumstances we find, besides the lesions which have just been described, all those appertaining to the latter affection. To this complication, perhaps, we may attribute the difference in opinion amongst veterinarians, as to the contagious property of glanders. Nevertheless, in appears to us that science has arrived, in this respect, at such a degree of certainty, that no doubt on the subject can be permitted. In fact, we know, and multiplied experiments have proved it, that *chronic* or *tubercular glanders* is not communicable, and that *acute* or *pustular glanders* has, on the contrary, this pernicious property. Moreover, in all cases in which these diseases are combined, there can be no doubt that the affection is contagious.

Gangrenous glanders, named also *coryza gangréneux* by M. Dupuy, is a disease which has been for a long time confounded with the preceding, although it differs from it in many respects. At its commencement we observe dejection and unsteady gait; the pituitary membrane and the conjunctiva are studded with red spots; the extremities, the scrotum, and the nose, present oedematous engorgement. At the end of from twenty-four to twenty-eight hours, the spots which existed on the pituitary membrane become greatly extended, and give to the membrane a livid aspect; the congestion of the limbs increases, and the animal commences to discharge a yellowish matter mixed with streaks of blood; he remains in this state two or three days at the most; then the pituitary membrane, which, in certain points, presented a blackish appearance, softens, falls into gangrenous shreds, and ulcers show themselves in the situation of these sloughs. The discharge, at this time more abundant, exhales a putrid gangrenous odour; the engorgement of the nose becomes considerably increased, respiration becomes more and more difficult, and life very soon ceases. The pituitary membrane in animals who have died of this affection, presents dark-coloured patches, formed by extravasation of blood; its texture in part softened, exhales a putrid odour; in the situation where the ulcers exist, the subjacent tissues appear of a greenish colour. Ecchymoses are also met with on the mucous membrane of the trachea and bronchi; the tissue of the lungs often presents petechiæ, and even softened gangrenous spots. The disease, in which the blood is sensibly altered, is contagious like all pestilential affections.

Acute farcy has, like chronic farcy, its seat in the lymphatic vessels; but it progresses more rapidly than the latter disease, and manifests itself by very different symptoms. It first declares itself by a slight eruption, under the form of hard lines, (*cordes*) which disappear and reappear. Soon the buds indefinitely increase in number over the whole body, and become persistent. At the end of from

four to five days they soften, ulcerate, and penetrate into the subjacent tissues. Often at this period a similar eruption is developed in the substance of the pituitary membrane, and speedily causes death by suffocation. We must not confound the eruption in this affection with that which often complicates acute glanders. It appears from the researches of M. Delafond, professor of pathology at the School of Alfort, that the buds which are developed in the latter affection are pustular, and situated in the cutis vera, while those of acute farcy have their seat in the lymphatic vessels.

These opinions of M. Bouley are, I think, in several points interesting, but I cannot agree with him as to the non-contagiousness of chronic glanders, and that this is a disease very different from acute glanders, which he says ought not to be called by the same name. In fact, M. Bouley's observation that "acute glanders is sometimes complicated with, and terminates in, chronic glanders," might have led him to believe that there is a nearer relation between the two diseases than he seems to allow. As to the contagious properties of acute and chronic farcy, he does not say a word, but observes, however, that "chronic glanders and chronic farcy have so great an analogy to each other, that often the one is only the prelude to the other." The opinions I hold on acute and chronic glanders, and acute and chronic farcy, are, that they are not distinct and separate affections, but merely modifications of one and essentially the same disease, and I believe this also is the opinion maintained by the most experienced veterinary surgeons in England at the present day; and in support of this opinion I would state, that the virus taken from horses labouring under one or other of these affections, and introduced by inoculation into other solidungula, have in them produced the other forms.

In the *Archives générales de Médecine* for the year 1838 will be found the following cases and discussions on glanders, which took place at the Academy of Medicine.

CASE VI.—M. Breschet recorded the following case:—a man of the name of Limosin, enjoying good health, and never having had any syphilitic affection, engaged himself as ostler on the 25th of June, 1838, to a carrier, who had in his possession several glandered horses. Limosin slept in the same stable. On the 16th of August, he felt a violent pain in the left knee, was obliged to leave off his employment, to go and pass several days with his family, and to enter on the 27th into one of the wards of M. Breschet. At this period the face was pale and anxious, the left knee red, swollen, and painful; several pustules or phlyctenæ appeared on the face, the scalp, and the extremities. The nose was red and livid, and from it flowed mucus tinged with blood. In several parts of the body there existed deep-seated collections of matter. The patient passed into a state of stupor, soon afterwards into a state of collapse; the stools became abundant and fetid, often involuntary; the respiration was laborious, but, nevertheless, the respiratory murmur was not at all altered; the expectoration was viscous, thick, and yellow; the pulse 140 to 150. Finally, on the 30th, delirium came on, the respiration became embarrassed, and the patient died in the night. At the autopsy there was found inflammation of

the veins of the arm, abscesses in the muscles of the neck and of the pharynx; large purulent collections in the course of the extremities; in the nasal fossæ an inflammatory congestion and pustules; a gangrenous patch existed in the pharynx, which was also besprinkled with phlyctenæ. The lungs presented here and there the lobular divisions inflamed, and in different stages of pneumonia. The lymphatic glands of the extremities were swollen, but did not contain pus.

M. Barthelemy made some observations on the case which M. Breschet had just recited. There is without doubt, said he, an analogy between this disease and acute glanders in horses; but is there an identity between these two affections? No, certes, there is on the contrary a great dissimilarity. In the horse, the lesions of the nasal fossæ are primitive and predominant; in the case which had just been recited, they appeared to be secondary. The abscesses disseminated throughout the extremities, the gangrenous patches, the lobular pneumonia, the phlebitis which are not met with in like manner in the horse, were they not here the principal affections, and the real cause of death? In Limosin we see at first a violent pain in the left knee—a pain which the bleedings, the leeches, and the blisters, could not combat. On his entrance into the hospital, the first phenomena were not those of glanders, it was only a few days before his death that the characteristic symptoms appeared, and that the nasal fossæ became affected. Moreover, at the autopsy, those engorgements of the submaxillary glands which are always observed in glandered horses, were not found. Finally, it was necessary to weigh facts well, and to avoid jumping at conclusions.

CASE VII.—M. Husson related the following case:—On the 18th of October, a man named Dondinière, aged 24, was employed as ostler in the stables of the *Dames-Blanches*, to attend upon glandered horses; he slept in a stable with ten of these diseased animals. Dondinière fell sick on the 24th of September. Already for several days past he had been affected with a coryza, when, on the day just mentioned, he was attacked with cephalalgia, and a pain in the right shoulder. This pain was regarded as rheumatismal, a bleeding was ordered, and the blood presented the inflammatory crust. On the next day, an abundant discharge took place from the nares, of dark coloured blood mixed with mucus. Another blood-letting was practised, which again presented the inflammatory crust. On the 4th, 5th, and 6th of October, there appeared painful swellings on different parts of the body, numerous small pustules formed about the axilla and on the arm, then on the face; a continued discharge of mucus took place from the nares. Stupor and diarrhoea were not long in showing themselves, and on the 8th of October the patient died during the course of the day. At the *post-mortem* examination, lesions analogous to those found in the patient of M. Breschet were met with; numerous abscesses, considerable erosions in the nares, and perforation of the septum, pustules and gangrenous patches in this region, lobular pneumonia, &c.

M. Bouley thought that if glanders occurred spontaneously in the solidungula from fatigue, bad nourishment, over exertion, &c., the same circumstances might produce it in man.

Contagion of glanders.—M. Rayer, in answering

to those opposed to the contagion of glanders, proposed to examine the four following questions:

1. The malady described under the name of acute glanders in man, is it a specific disease?
- 2nd. Does it resemble the acute glanders in the horse?
3. What kind of men are attacked by the malady?
4. What are the effects produced by pus taken from the men thus affected, and introduced by inoculation into the system of the horse and ass?

1. A febrile affection, beginning by acute pains in the extremities, a muco-sanguinolent discharge from the nostrils, and an eruption and ulcerations on the mucous membrane of the larynx and nares, with abscesses in the extremities, lobular pneumonia, phlebitis, ecchymosed and gangrenous patches on the skin: a like disease has no resemblance to any of those described by authors; it is truly a specific affection. M. Barthélemy stated last year, that if the nasal fossæ were more frequently examined in *post-mortem* examinations, lesions analogous to those of which we have just spoken could perhaps be found. Since that time, the nasal fossæ of thirty-four subjects, who had died of acute diseases, had been examined, and nothing analogous had been met with.

2. We may state in the patients of MM. Breschet and Husson, that there is an identity in the anatomical lesions, and in the alterations of the nasal fossæ, with those of glandered horses. M. Barthélemy, as it suited his purpose, has endeavoured to point out several circumstances of great dissimilarity. If we are to believe him in this respect, the lobular pneumonia, the pustular eruption on the skin, the phlebitis, the abscesses in the muscles, are not met with in the horse; and, on the other side, the engorgements of the submaxillary glands, so common in glandered horses, cannot be shown in man. M. Rayer maintained, that these differences did not exist, since the lesions of structure above recited are met with in the horse; observation and *post-mortem* examinations have demonstrated this. Moreover, gangrene of the skin ought to appear earlier in man than in the horse, for in the former the disease may produce all its effects, whilst in the latter it is prevented so doing by a violent death. In animals the engorgement of the submaxillary glands very readily occurs as a consequence of various affections of the nasal fossæ; in man, on the contrary, this accident scarcely ever takes place, except in affections of the larynx and pharynx. The pains, the tumefaction of the extremities are also met with in the horse. Finally, the progress, the duration of the disease, and that of the period of its incubation, present the greatest resemblance. It has been said that glanders in the horse is a local disease, having its origin in the nose. M. Rayer combated this opinion; with him, glanders is an affection of the system in general.

3. All the subjects in whom this disease has been met with, were either grooms, or men brought into contact with glandered horses.

4. The matter taken from those affected with this serious malady, and introduced by inoculation into the system of animals, has in them produced glanders. To what conclusion does so much evidence lead us, if it is not that the foregoing affection under consideration is really acute glanders, and that it is communicable by contagion from the horse to the man?

On the 20th of November, 1838, there was in

the wards of M. Roux a patient who, having pricked his finger in opening a glandered horse, had been attacked by inflammation of the lymphatic vessels, and abscess in the right arm and in the left thigh. M. Rayer having inoculated a healthy ass with the pus taken from this patient, the animal died at the end of nine days, presenting the symptoms of acute glanders. The autopsy showed the presence of pustules in the nasal fossæ and lobular pneumonia.

Treatment.—As to the most eligible mode of treating this affection, I can say little or nothing; this we have yet to learn. The cases I have myself seen have terminated fatally, as appears to have been also the case with most of those on record. Dr. Elliotson has recommended the local application and internal administration of creosote, in the proportion of from one to three minims to the ounce of distilled water. As it is to the exertions of this scientific and enlightened physician that we owe some of our most valuable remedies, and as his opinions on therapeutics are worthy of the most attentive consideration, I should myself feel inclined to adopt his practice, more especially as there are four cases on record in which this medicine seems to have been of benefit. Two were cases of equinia nasalis, (glanders confined to the nasal cavities,) treated by Dr. Elliotson, one of which was cured by the local application of creosote, and the other by its local application and internal administration. The third case was admitted into University College Hospital, under the care of Dr. Elliotson, and is recorded in the 2nd vol. of the "Lancet," 1837-38. The fourth case is to be found in the "Veterinarian" for April, 1839; in this instance the creosote seems to have rescued the patient from an untimely death; it is related by Mr. J. W. Ions, a veterinary surgeon at Waterford.

The following are the particulars:—"On the 15th of last month," says Mr. Ions, "my son was attacked with a severe cold, which continued bad for a few days, although the usual treatment was adopted. At length the cold got better; but the tonsils remained very much inflamed and enlarged, and there was a small sore on the ala of the right nostril.

"On the 20th he had occasion to examine a brewery horse, that was labouring under glanders. The horse snorted in his face, and covered it with the nasal discharge. My son wiped it off with his handkerchief, and thought no more of the matter.

"On the 22nd, the swelling of the tonsils continuing, a blister was applied to the throat. The result was somewhat extraordinary, for, instead of a serous discharge, an abundance of well-formed purulent matter exuded.

"On the 24th he felt very unwell. His nose was exceedingly sore, the breathing through it quite obstructed, and the right eye slightly affected. The pulse was 116, with profuse discharge from the nostril, of a ropy, glairy appearance. I immediately sent for a physician, who ordered aperient medicines, and the local application of a solution of nitrate of silver.

"On calling the next day, he found a large ulcer on the Schneiderian membrane, which was extending upwards. He ordered the solution already prescribed to be injected up the nostril, and he ordered small doses of calomel. Carrot poultices were applied occasionally, which gave

temporary relief. Sarsaparilla was also administered. The disease soon began to assume a most alarming appearance, and I urged his medical attendants to have recourse to the creosote, which I had before pressed upon them. They consented, and prescribed an ointment in the proportion of one drachm of the creosote, to seven drachms of lard. The slightest application of this produced the most agonising pain, and of course it was immediately discontinued, and the creosote was condemned. I affirmed that no fair trial had been given to it; and, as they now considered the case of my son a hopeless one, I respectfully told them that I should pursue my own course.

"The disease had now assumed the most fearful character: there was profuse nasal discharge, accompanied by the most offensive smell; and ulceration extending into, and seemingly occupying the whole of the nasal cavities. There was great prostration of strength, cold perspirations, pulse 112, laborious breathing, and every appearance of approaching death. I added two minims of the creosote to an ounce of water, and injected the mixture up the nose as high and as universally as I could, and this I repeated three times in the day. I pledge my honour, that after the third injection, a change almost magical took place. The discharge in a great measure ceased, and two days afterwards, the ulcers began to assume a healthy appearance, and they have rapidly improved ever since.

"The ulcers have now lost all their cancerous character, and are assuming a healthy granulating appearance. His diet was nutritious, but no solid food was allowed; and in the course of every day he drinks a tumbler full of good ale. Yesterday he rode out for an hour.

"*Waterford Veterinary Establishment,*
Feb. 28, 1839."

In the *Bulletin de l'Académie de Médecine* for 1837-38, will be found the following cases, where topical baths of belladonna were employed, apparently with benefit. They are related by Dr. Parat, physician to the Veterinary School at Lyons, who places them under the head of *Farcin Simulé*.

"Two students wounded themselves in the hand, the one in operating on, the other in dissecting, horses affected with the glanders. In both, the punctures, at first insensible, were not long in becoming inflamed; the inflammation spread to the lymphatic vessels of the fore-arm, and simulated, what is called in the horse, a farcy cord; a primary deposit of matter took place in both cases. 'We could not then,' continues Dr. Parat, 'but fear, that several other deposits would form, as painful experience had already taught us in analogous instances. Happily, through the influence of topical baths, consisting of a strong decoction of the leaves of belladonna, (*atropa belladonna*), employed twice a day, the inflammation was arrested; no new collections of matter took place, and the patients are at present in good health.'

"The belladonna, in these instances," observes the editor of the *Bulletin*, "did it not act as a sedative; and can other substances of a like nature be substituted in its stead? Moreover, is it to its specific action that we are to ascribe the beneficial effects which it produced?"

The last case I shall mention is one which I presume might be classed under the head of

"*Farcin Simulé*" of Dr. Parat. It bears some analogy to the two foregoing ones, and as it occurred in my own person, I can speak feelingly on the subject. In making the *post-mortem* examination of the man, John Smith, who died of glanders, I had the misfortune to puncture my finger. Four or five days afterwards I was surprised to find that the wound had not healed, but had become painful, and on pressing the finger a small quantity of matter oozed out. The abscess continued to increase in size, and the periosteum covering the second phalanx of the middle finger, the seat of the injury, became thickened. Soon after this, I was troubled with dull aching pains shooting up the fore-arm and arm; an erythematous blush appeared on the fore-arm, and one of the glands in the axilla was painful on pressure. The affair, however, went no further than this. The treatment I adopted was to take five grains of blue pill every night, and to keep the bowels open with saline medicines; water-dressings were applied to the finger, and, on retiring to rest, I had the fore-arm enveloped in flannel, wrung out of warm water, and applied as hot as I could bear it; this was surrounded by a portion of oil silked, to retain the heat and moisture; from this application I experienced the most marked relief, and in the course of a few days the blush on the fore-arm entirely disappeared. The abscess in the finger, however, continued to discharge for about two months, when it healed, and the thickening of the periosteum gradually subsided. Not being in very good health at the time the injury was received, it is not surprising that symptoms resembling those of an ordinary dissection would have appeared, but bearing in mind the case of the unfortunate nurse, and the serious countenances of the medical gentleman present at the time of the accident, I cannot but consider myself extremely fortunate in having got off so easily.

REMARKS

ON

THE NEW ATTEMPTS TO CURE

OR RELIEVE STAMMER, AND OTHER IMPEDIMENTS IN SPEECH, BY SURGICAL OPERATION.

By F. BENNETT LUCAS, Esq.

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SINCE the attention of the profession was first directed to the cure or relief of stammer, and other imperfections of speech, by surgical operations, I have not only performed on the dead and on the living subjects every operation which came recommended by competent authority, but have also performed others which originated with myself, and have materially simplified the most formidable of all.

The methods of performing these various operations have long since been made public through the pages of the *PROVINCIAL MEDICAL AND SURGICAL JOURNAL*; and the accounts there given of the conditions of the several patients, both before and after being operated upon, however deficient they may have been in other respects, had their greatest recommendation in a strict adherence to veracity in their narration. The

same desire to arrive at truth dictates these observations.

When the remarkable success attendant upon the division of the muscles of the human eye in strabismus was placed beyond all doubt, it was rational to suppose that the application of a similar operation to the muscles of the tongue in cases of stammer, where that organ presented deviations from its natural form, or was bound down or otherwise limited in its accustomed mobility, would be also attended with as happy results.

A paragraph in one of the continental daily papers, to which my attention was directed by Dr. Hennis Green, stated that Professor Dieffenbach, of Berlin, had successfully dealt with numerous cases of stammer by the division of the muscles of the tongue; but no further account was given of the matter—how the operation was performed—what muscles were divided—the cases to which such proceedings were applicable—nor, in short, any other light beyond the above simple announcement.

Theory in an obvious manner warranting the supposition that many impediments in speech might possibly be corrected by the division of the muscles of the tongue, I selected from numerous stammering patients those in whom such an operation appeared to promise most. These consisted of cases in which the individuals stammered at words containing letters which required the tip of the tongue to be fairly and steadily applied to the superior alveoli; such as *stammer, doctor, nothing, total, &c.* And in the belief that such defect could be benefited—if not cured—by dividing the muscles of the tongue, which turned its tip *down*, (and thus give increased power to those which turned its tip *up*, or to their antagonists,) the genio-hyo-glossi muscles, properly so called, first attracted my attention.

These muscles I divided for the first time in the case of Patrick Heron, by separating them from their tendinous attachment at the superior mental tubercle. After a few days, this patient not having experienced the benefit I anticipated, I performed the operation recommended by my friend M. Amussat, and excised a triangular portion of these muscles immediately beneath the frænum linguæ, the incisions to accomplish which involved the entire thickness of each muscle. Experience having satisfied me of the safety with which this latter operation could be performed, I did not hesitate to apply it to numerous other cases; some of which, in addition to that of Heron, have been laid before the profession.

In several cases I have simply divided the frænum linguæ with a similar object, and I have abstained, in such, from prosecuting the operation deeper, unless the free margins of the genio-hyo-glossi muscles were embraced within its folds, as they often are, or became very tense in the attempt of the patient to elevate the tip of his tongue.

Shortly after I had performed these operations, the newspaper paragraph alluded to became fully explained in a memoir on the subject sent to the Institute of France by Professor Dieffenbach, and also by an interesting account by Mr. Joseph Travers of the original operations.

It is here unnecessary to dwell upon the three operations recommended by Dieffenbach, as the learned professor has only insisted upon the utility

of one, which consisted of "the horizontal division of the root of the tongue, with excision of a wedge-shaped portion."

This latter operation I performed at the Metropolitan Free Hospital, on April 1, 1841, on the person of Thomas Young; the account of which, and the state of the patient to May 2, are detailed in No. 32 of the Prov. Med. and Surg. Journal.

Having witnessed a case of defect in utterance, in which Mr. Lawrence excised a portion of the uvula, and from which the patient appeared to have experienced much benefit, I performed a similar operation in some ten or a dozen cases, which promised, from the nature of their defects, similar results; and in about the same proportion I have excised one or both tonsils after the method recommended, and according to the views advanced by Mr. Yearsley, in the memoir on "Stammering and other defects in speech," read before the Westminster Medical Society, by its author, at the request of that body.

In a few cases I have freed the soft palate by an incision on either side, parallel to its pillars, and in others I have removed both the tonsils and the uvula.

The summary of these various operations is as follows.

1. Division of the genio-hyo-glossi muscles at their attachment to the superior mental tubercle.
2. Complete excision of a triangular portion of the bellies of the genio-hyo-glossi muscles at the point where these muscles pass beneath the frænum linguæ.
3. Both these operations in the same individual, viz. Patrick Heron.
4. Simple division of the frænum linguæ.
5. Excision of a wedge-shaped portion of the tongue near its root.
6. Excision of the uvula.
7. Excision of one or both tonsils.
8. Excision of both tonsils and uvula.

These several operations were performed in the presence of many of my professional friends, and with their approval, and some similar ones I had also opportunities afforded me of witnessing in their practice.

Without at present entering into the merits or demerits of the theories on which these several operations have been founded, sufficient time has elapsed since their performance to judge practically of their results. In nearly all, each patient experienced momentary relief from the hesitation, or from the impediment under which he laboured,—relief amounting, for the time, to an apparent cure.

In the majority of the cases this relief has not been permanent, in a few it has.

The division of the genio-hyo-glossi muscles has not been attended with the benefit I anticipated, the patients having, in nearly all the cases, relapsed to their former condition.

Thomas Young, in whom I excised the wedge-shaped portion of the tongue, is now as incapable of making himself understood as he ever was.

The division of the frænum linguæ promises just as much in the adult as it does in the sucking child.

The only improvement in stammer I have witnessed, has been in those cases where enlarged tonsils, or a heavy pendulous uvula, called for their removal. And even here nothing approach-

ing to what could, by the utmost stretch of the imagination, be called a permanent cure, have I seen.

12, Argyle Street, Regent Street, London.
June 22, 1841.

ON THE
PHYSICAL ALTERATIONS OF THE BLOOD
AND
ANIMAL FLUIDS IN DISEASE.

By M. ANDRAL.

No. III.

(Continued from p. 187.)

Diseases in which the quantity of fibrin is diminished or retains its normal standard, while the globules are increased, or retain their normal standard.

It has been clearly shown in the preceding paper, that the quantity of fibrin contained in the blood is constantly increased during inflammation; but it may be asked, does this increase depend on the inflammation itself, or is it connected with the accompanying fever? M. Andral unhesitatingly answers, that it does not depend on the febrile movement. We have, for example, a large class of diseases, of which the principal feature is a fever just as intense, and often more protracted than pure inflammatory fever; now, in this class, we often find the fibrin either in normal quantity, or remarkably diminished. The class alluded to is the "pyrexia;" and here the analysis of the blood points out a fundamental distinction between them, and the class "inflammations." In addition to the pyrexia, M. Andral has found the quantity of fibrin diminished in cerebral congestion and hæmorrhage.

Condition of the blood in the premonitory stage of continued fever.—The blood was examined in eight patients, who were bled nine times. In no case was the quantity of fibrin increased; in three cases it was somewhat diminished, though still above 2; in two other cases the quantity of fibrin had fallen to 1·8 and to 1·6; on the other hand, the proportion of globules was generally augmented, giving 136·4, 137·9, 142·7, 143·5, and even 157·7; in this latter case the fibrin amounted only to 1·6. When received into the hospital, the patient presented a very remarkable degree of muscular prostration; after some time he recovered his strength a little, and was then bled again; the fibrin had now increased to 2·1, but the globules had fallen from 157·7 to 129·3; and the solid constituents of the serum from 96·6 to 88·9. In all the cases the solid parts of the serum were abundant, while the watery part, on the contrary, never exceeded the average quantity, and in one case fell to 74·2.

Simple continued fever.—The blood was examined in eleven patients, who were bled twenty-one times. In six cases the disease terminated favourably without any complication; in six others, it was complicated after a certain lapse of time with some inflammatory disease, such as erysipelas, angina, bronchitis, &c. Hence, these two series

should be distinguished from each other, for obvious reasons.

In the first series ten experiments were made; once the fibrin amounted to 5·6, that is to say, to the minimum figure of inflammation. The patient was a young girl, 18 years of age; when bled previously, the amount of fibrin was ascertained to be 4·6; no particular symptom was present to explain this augmentation of the fibrin, which was found on the seventh and ninth days; but since the same quantity was never found in any other case of simple fever, M. Andral thinks that it must have been connected with some inflammatory complication which escaped detection. In the other cases the fibrin varied from 4·2 to 2·2.

The globules presented very remarkable differences; in one of the five cases, they amounted to the enormous sum of 185·1; the patient was 58 years of age, and affected with what Pinel calls inflammatory fever; the disease continued for eight days, and then terminated in recovery, without any dangerous symptom. In three other cases the globules amounted to 120·7, 117·4, 103·6; in the latter the fibrin marked 4·6. Finally, in the fifth case, the globules amounted to 82·5 only; but this was explained by the circumstance of the attack occurring in a chlorotic female. The solid parts of the serum varied from 98·7 to 90·9; the water from 725·6 to 851·9.

We have now to consider those cases in which the simple fever became complicated by some local inflammation. Out of six cases there were three, (two of amygdalitis, one of erysipelas,) in which the inflammation produced no effect on the blood; but in three other cases, the fibrin was augmented to 4·5, and 5·4, which the globules diminished to 118·6, 114·7, and 94·1; these examples show how the blood is modified by the occurrence of local inflammation during the course of continued fever; when the inflammatory affection is slight, it produces little or no effect; but if severe, the quantity of fibrin is at once increased.

Typhoid fever.—The blood was examined in twenty cases of this disease; fifty experiments were performed. M. Andral confines the term typhoid fever to that species characterised by ulceration of the mucous follicles of the intestinal canal; now, although the lesions which exist in typhoid fever are manifestly the result of inflammation, the blood is far from presenting the characteristic signs of an inflammatory affection; we find no augmentation of the quantity of fibrin in cases of typhoid fever, but, on the contrary, a diminution in many cases; as the fever becomes more severe, the fibrin diminishes until it reaches the minimum quantity. This remarkable decrease in the quantity of fibrin does not depend on blood-letting or an abstinence from food; while, on the other hand, the relative proportion of the fibrin increases as soon as the disease assumes a favourable change, long before the effects of food could be experienced. It has already been shown that in inflammatory diseases the blood globules are considerably diminished in quantity; in typhoid fever we find an opposite tendency; when we examine the blood at an early stage of the disease, we discover an evident augmentation of the globules, and this increase is proportionate to the period or stage of the fever; it is not, however, constant, like the increase of fibrin in inflammation, and is not, therefore, an essential element.

Diminution of fibrin, then, with excess of blood globules, is the characteristic condition of the blood in typhoid fever; at an early stage of the disease the globules alone undergo an alteration, for the deficit of fibrin is merely relative, but as the disease advances, and the symptoms become severe, the fibrin diminishes actually as well as relatively. In one remarkable case, the fibrin fell as low as 0·9; the patient was in a state of extreme prostration at the time he was bled: there was delirium with considerable stupor; the tongue and teeth were covered with black crusts; the mucous membranes of the mouth and nose were the seat of passive hæmorrhage; yet this patient recovered. In the various cases of typhoid fever examined by M. Andral, the blood furnished a maximum of 3·7 of fibrin, and a minimum of 0·9; the globules (examined in blood drawn at the first bleedings) were frequently above 130, and generally varied from 130 to 100; even when the patient was bled two or three times during the course of the disease, the figure representing the quantity of globules was a high one. In one case of typhoid fever, when three bleedings had been performed successively, the fibrin marked 5, 5·4, and 5; and it required a fourth bleeding to bring it down to 4. The reason of this apparent anomaly was manifest: the pulmonary congestion which so often accompanies typhoid fever had been replaced by acute bronchitis, and hence the increase of fibrin; the globules, however, were in great abundance, and the blood presented at one and the same time the characters of inflammation and of fever.

Eruptive fevers.—The blood was examined in two cases of scarlatina, seven of measles, five of small-pox, and two of varioloid. In none of the sixteen cases was the quantity of fibrin augmented in any remarkable manner; once it rose to 4·4, but on the other hand it never descended so low as it does in typhoid fever; the minimum was 1·1, in all the other cases it varied between 3 and 2. The globules indicated an analogy to the pyrexia; they were augmented; but what is peculiarly interesting is, that this only occurred in scarlatina, and the majority of cases of measles, but never in small-pox or varioloid.

Intermittent fever.—In this species of fever, where the intervals between each attack are marked by a return to apparent health, we might theoretically conclude that the blood does not undergo any important changes; experience proves this to be the case. In six cases of intermittent fever, the quantity of fibrin was always normal; the quantity of globules was, generally speaking, a little lower than it should be, but this may be accounted for by the condition of the patients on whom the experiments were made. The blood was drawn at every period of the fever; during the access; in the cold and sweating stages, and during the interval.

General remarks.—The blood has now been examined in the ordinary forms of fever, and the difference between it and the blood of inflammatory affections has been found to be most marked. In fever, the characteristic change seems to be a change of proportion between the fibrin and globules, the former being diminished. The experiments made by M. Magendie on animals have shown that one of the effects of this diminution of fibrin in proportion to the globules, is the produc-

tion of hæmorrhage or congestion, either in the parenchymatous tissue or surface of membranes. Now, these two conditions frequently complicate febrile disorders, and hence the analysis of the blood corroborates the experiments of M. Magendie. In accordance with these views, we should find a very low standard of fibrin in purpura hæmorrhagica, but M. Andral has not, as yet, had an opportunity of confirming this by experiment; it probably however exists, for the blood in purpura is extremely fluid, and the absence of fibrin has the effect of diminishing the cohesion of the blood.

PROVINCIAL

MEDICAL & SURGICAL JOURNAL.

SATURDAY, JUNE 26, 1841.

It is an evil of no small magnitude attendant upon the present mode of conducting state affairs in this country, that questions of great public utility are either lost amidst the strife and contention of party feeling, or from their want of bearing on private, local, or concentrated interests, liable to be disregarded and thrown aside upon the first show of opposition. Such questions as on the one hand involve the interest of party, and are capable of being made a pretext for a struggle for political supremacy, meet at all times with a disproportionate regard in that part of the legislature which professes to represent the interests of the general community.

Such measures, on the other hand, as are strictly private, and relate to local interests only, are sure of attention, so far as is required to carry them through the House. The former are made occasions of great political display; member after member rises to deliver himself of a speech, consisting of observations for the most part borrowed at second or third hand, and often got up at a much greater expenditure of time and labour than the intrinsic importance of the subject called for, while the war of words is throughout conducted with an order and regularity of succession, among the champions of the contending parties, which forcibly reminds us of the deeds of old Homer's heroes, or the more modern achievements of Chevy Chase. Whig and Tory, Radical and Conservative, in like manner, alternately contend for victory in the arena of the House of Commons, or exhaust themselves and the patience of the country at the stale game of battledore and shuttlecock, keeping up the political plaything until the time which should be devoted to purposes of real

utility is wasted in nightly verbiage, and talents which might and ought to be subservient to the public good are prostituted at the shrine of party, and rendered available only for the purposes of personal ambition. The contention, deliberation we cannot call it, is, moreover, a mere mockery, a gladiatorial puppet, got up for the amusement and mystification of the most thinking public, and often without other aim than to blind the eyes of the lookers-on with this additional absurdity as a characteristic, that the five, six, or seven nights' talk leaves the question in dispute exactly where it was, and the division, when it comes, is found to be entirely in accordance with what had been foretold at the very outset of the debate.

Private measures, useful it may be or otherwise, are disposed of after another sort. Some person of sufficient influence obtains a committee; the matter, whatever it may be, is submitted ready concocted to some five or six or more gentlemen, who sit from time to time as occasion calls for; a report is drawn up and presented to the House, and the bill passes *sub silentio*, or rather amid the noise and confusion of a very Babel of tongues, without any but the member interested in carrying the question, troubling themselves about it. Again, when the interests of large and influential portions of the community are concerned, the agriculturist, the manufacturer, the commercialist-class-interests, as they are termed, the occasion is seized upon as affording ground for another political tourney, or possibly for harangues got up for the hustings, spoken in and through the medium of the House, and nominally addressed to the Speaker, but really intended for the constituents of the honourable members.

These class-interests are very important matters. They often exercise, as we have lately seen, considerable influence upon the state of party politics, and are therefore occasionally played off by skilful tacticians to great advantage. *Fas est et ab hoste doceri*,—it is well to gather up the crumbs of knowledge whencesoever they may fall; and as we cannot hope to obtain a hearing for the cause, or a redress for the grievances of the medical profession, either on the ground of public advantage or simple justice, it may be as well to try the effect of this recently-pointed, if not newly-discovered weapon. It may be thought possibly that the medical profession is not of sufficient importance, or in sufficient numerical strength, to constitute a class-interest. We cannot, however, deem those to whom the care of health and life is intrusted, less worthy of account than those upon whom the charge of mere worldly interests devolves; and if the myrmidons of the law, *duri milites Ulyssis*, are more numerous than the sons of *Æsculapius*, there

is not that extreme difference as to exclude the one from all share in public consideration, and at the same time entitle the other to assume the position which they now occupy in the state. The interests of the ministers of religion are represented in the House of Lords, lawyers of every grade abound in both houses, and both the clerical and legal professions become in consequence class-interests. Why then should not the members of the medical profession seek also to procure representatives for themselves, seeing that they are otherwise unable to gain that consideration for their claims, to which, as a highly-intelligent and numerous body of the community, they are every way entitled.

Hitherto, or at least for many years past, the medical profession has had no representative in either House of Parliament, no person capable of giving an opinion on medical affairs, or competent to advise on measures necessary for the preservation of the public health, or for the advance of medical knowledge. What has been done in these respects, has been worked out solely by the energy and exertions of the profession from without, and often in opposition to public prejudices, and in contravention of the injurious restraints of public enactments. We say advisedly, that the medical profession has not only not been represented in either House of Parliament, but of late years has had to contend with the further disadvantage of being misrepresented in the House of Commons.

We cannot but look upon the circumstances which have contributed to place the member for Finsbury in an undue position, as being the only member in the House of Commons belonging to the medical profession, as most unfortunate. The whole body suffers from the false position in which this one individual is thus placed. Assuming to himself, in consequence, a lead in the discussion of medical subjects, he has in various ways contributed greatly to impede the settlement of medical questions on those few occasions in which they have been permitted to come before the House.

It cannot be supposed, independently of other considerations, that an individual, the greater portion of whose public life has been spent in scattering obloquy and abuse upon many of the most eminent and most estimable members of the profession to which he belongs, and of widely spreading the seeds of discord amongst them, can for one moment be thought fitted, either to represent the sentiments or advocate the interests of the general body. The weapon which he has on so many occasions indiscriminately wielded, might be more appropriately termed the Tomahawk than the Lancet, while on the other hand, in the aberrant nature of his course throughout, he has been, in

all but the comparative harmlessness of the instrument!

Very like a needle going astray,
With his one eye out, through a bundle of hay.

We trust, however, that in the ensuing parliament the medical profession will be represented by gentlemen whose acquirements shall entitle them to consideration, whose character shall command respect, and to whose advocacy the profession may both safely and honourably commit their interests.

An account of the proceedings of a numerous and influential meeting of medical practitioners on the other side of the Channel will be found in our last number, which are well worthy both of attention and imitation on this. At this meeting, called expressly for the purpose of endeavouring to ensure the return of a member of parliament to represent the interests of the profession, the lamentable evils experienced from the want of some medical authority in the House of Commons were ably pointed out by each succeeding speaker. Professor Jacob, in moving the first resolution, brings it forward as a remarkable fact, "that in the House of Commons there is not a single man capable of honestly advocating the interests of the medical profession,"—a statement, indeed, embodied in the resolution itself,—while in former periods, several of the most eminent members of our profession have at various times sat as members of the House of Commons. Dr. Radcliffe, as was stated by Dr. Maunsell, served in several parliaments; Dr. Clements for many years represented the University of Dublin; Dr. Lucas was also mentioned by the same gentleman, and he might have added the names of Friend, Mead, and many others of high standing and extensive practice, to the list. The importance and necessity of recurring to the ancient custom are well shown in the long catalogue of grievous injury to the profession adduced in the speeches of Drs. Jacob, Ireland, and Maunsell; and we cordially hope that the anticipation of Dr. Bowers Thompson may be realised, that the profession may soon have a member of their own body, who will pay all attention and respect to the wants and grievances of which they complain, and who will be able "to meet the dexterous and wily sophisms of that would-be medical reformer, the Editor of the *Lancet*."

We would fain hope, also, that the example so well set by our intelligent friends on the other side of the Channel, will be followed on this. We have heard of more than one city or borough in which there is some difficulty in finding a fitting candidate to represent the political opinions of the constituency. Why should not advantage be taken

of this circumstance, and some upright and intelligent physician or surgeon, whose general politics may be in accordance with those required, be brought forward? Why should not some of the great bodies of the medical profession send such a candidate, as well as the Whig or Conservative clubs? In the endeavour, on the part of the profession at large, to select and support a candidate of this character, it is not necessary that the political opinions of any individual or party should be compromised. If a Whig candidate is required, let the medical practitioner selected be of this class of political opinion; if a Conservative, let some practitioner of the like views be brought forward. Happily, however the profession, equally with other classes of the community, may be divided upon questions of general politics, there is little difference of opinion respecting the necessity of reform in the constitution, and redress of the grievances of their own body. Some of the most able and warmest advocates of medical reform are conservative in general politics, and no difficulty will, we are assured, be experienced in finding gentlemen of high principle and upright character belonging to either of the great parties which divide the state, to represent the medical profession in the ensuing parliament.

Let the example so well set by the profession in Ireland be forthwith followed in this country, and before long, we may hope to have our interests ably represented, and the attention of the legislature directed by competent advisers in all questions relating to medical subjects, whether calculated to provide for the protection of the profession or the welfare of the public.

REVIEWS.

Des Maladies de la Femme, et des Medicaments les plus Efficaces à employer dans leur Traitement.
Par A. CAVARRA, D.M.P. Paris, 1841.
Crochard. 8vo. pp. 248.

THIS small work contains, in an unpretending form, many practical hints relative to diseases of females and their treatment. M. Cavarra seems to have paid particular attention to the department of *materia medica*, and to have performed numerous experiments, for the purpose of ascertaining the real action of many medicinal substances on the living body. A want of knowledge of what the author calls experimental *materia medica* has, certainly, much impeded the scientific progress of medicine. In how many cases does the medical man prescribe medicine traditionally, without any positive knowledge of the real effects of the remedy during health or disease! As a striking example

of the practical errors which arise from this source, M. Cavarra cites the custom of applying the acetate of lead lotion on a warm linseed-meal poultice; the latter is emollient, and relaxes the tissues; the former, being astringent, has an opposite effect, and the combination is as unscientific as any admixture of chemically incompatible substances. To remedy the inconveniences which result from the present mode of instruction, the author hints that a professorship of experimental materia medica and experimental physiology should be instituted; the hint, perhaps, may not be thrown away.

A General Outline of the Animal Kingdom, and Manual of Comparative Anatomy. By THOMAS RYMER JONES, F.Z.S., &c. Van Voorst, London, 1841. 8vo. pp. 732.

THE nature of this work prevents us from bestowing upon it any other notice than a very general one; to lay before the naturalist a complete view of the organization and physiological relations of every class of living beings, and to furnish the anatomical student with a succinct account of the structure and development of the vital organs, through all the modifications that they present in the long series of the animal creation, are the objects of the author; to follow him through so vast a range were beyond our power. We cannot, however, refuse to bestow a warm commendation on the manner in which Mr. Jones has executed his arduous task; the present manual affords the best general outline of the animal kingdom that we are acquainted with; it is neither too prolix, nor too concise; the ascertained facts connected with the anatomical structure of animals, are collected from every available source, and arranged in lucid order, and the letter-press is illustrated with more than three hundred wood-cuts, which will bear comparison, for beauty and accuracy, with the best specimens of the art, even in its present perfect state.

ROYAL BERKSHIRE HOSPITAL.

(Practice of Mr. F. A. BULLEY.)

DISLOCATION OF THE ELBOW, WITH A SINGULAR DISPLACEMENT OF THE RADIUS.

SAMUEL FARLEY, æt. 28, a healthy, muscular man, guard to a night train on the Great Western railroad, was admitted into the hospital, on account of a dislocation of the ulna and radius, caused by his having fallen from a truck, and pitching with great force on his hand, the train being at the time in rapid motion. The limb was considerable shortened. He was suffering excessive

pain in the injured joint; and pain, and some numbness, were felt extending downwards, in the course of the ulnar nerve, as far as its digital extremities, where he described his sensations as most agonizing. This may, probably, have resulted from the coronoid process pressing on and irritating the nerve, after the displacement had taken place; and it is very likely to have been so, as he found the excruciating pain almost instantaneously diminish as soon as the reduction was accomplished.

The joint was greatly distorted, and the limb was held by the persons who brought him, in a gently flexed position, which he said was the easiest to him. The slightest attempt at further flexure or extension caused him excessive pain.

The ulna had been thrown backwards, and projected on the posterior surface of the humerus, the coronoid process lying on the cavity destined to receive the olecranon. The tendon of the triceps was in a state of great tension, and appeared as if in a state of tonic spasm. On the fore-part of the joint the biceps and brachialis internus muscles were greatly stretched. The head of the radius was curiously displaced, being thrown, as it were, across the ulna, and lying a little above and to the outer side of the usual situation of the coronoid process on the fore-part of the joint. In this position it was distinctly perceptible to the feel, the superincumbent soft parts being as yet very slightly swelled.

As it was impossible (owing to this peculiar displacement of the radius) to produce the slightest flexure of the joint, extension was made in a nearly straight direction, the arm being fixed by an assistant, and after steadily continuing traction in this way for about two minutes, reduction of the ulna was effected; the head of the radius, although drawn down, still remaining on the inner side of the arm, lying on the fore-part of the ulna.

Flexure was difficult and painful, from the head of the radius being pressed upwards against the inner condyle: in the attempt to perform this motion, after some time, I succeeded, by gradual compression with my fingers, in moving the head of this bone outwards into its natural position. He could now bend the joint with comparative ease, as far at least as the probably injured state of the ligaments would allow; and as I was satisfied that reduction had been fully accomplished, and that the radius had no tendency to become again displaced, I ordered the patient to be taken into the accident ward, and placed in bed, ten leeches to be applied round the joint; to be followed by fomentations. A raised position. House medicine.

19. Has been comparatively free from pain in the joint, but complains of pain, alternating with numbness, along the course of the ulnar nerve. A cataplasm of vinegar, and water, and bran, to envelope the arm and outer part of the hand; some swelling has ensued, with ecchymosis round the joint.

23. Much general improvement and diminution of the swelling; neuralgic pain continues.

R. Ext. belladonna, $\mathfrak{z}\text{i}$, lin. sapon., $\mathfrak{z}\text{x}$. ft. lin. bis. die. utend. A cold lotion to the joint.

25. The neuralgic pain has ceased. A week having elapsed since the receipt of the injury, passive motion was commenced and continued for a

quarter of an hour without inducing any particular pain in the joint. A figure of 8 bandage, wetted with cold lotion, to be applied.

27. The passive motion has been continued, without inducing inflammation, or increasing pain. The hot-water pump to be used twice a-day, for a quarter of an hour each time. As there was some difficulty in completely extending the arm, he was ordered to swing a weight of 14 lbs. in the hand, every now and then, for a quarter of an hour at a time.

30. Has been using passive motion and the other means since last report, and he can now move the joint with tolerable ease in all directions: only a slight stiffness remains.

R. Barbad. naphthæ, ʒiv., Camph. pulv., ʒij., olei rosmaiv. ʒi., olei tereb., ʒss., ft. lin. sæpe infricand.

June 1. These means, with the use of the hot-water pump, three times a-day, have been assiduously persevered in, with the occasional use of the liniment. He has now, fourteen days from the date of the accident, no pain in the joint, and he is able to perform every movement of it with perfect ease and freedom. Ordered to be discharged from the hospital.

7. He called, as an out-patient, and told me that he had resumed his usual occupations on the railroad, and that he felt neither pain nor inconvenience in using his arm.

I should not have been so minute in detailing this case, but that I thought the accident of so singular a nature, as to be worthy of being accurately recorded.

I must confess I feel somewhat at a loss to understand exactly how the peculiar displacement of the radius, which happened, could have been produced. Instances of dislocation of this bone forwards alone, or with the ulna broken, and backwards with the ulna unbroken, are not rare; but I cannot call to mind any author having mentioned a case precisely similar to this, where its head passed partially across the ulna anteriorly, and rested on the fore-part of the inner condyle of the humerus, the ulna having passed behind. I know of no way in which it could have occurred except through the medium of the pronator radii teres muscle, which at the moment of dislocation, when the annular ligament was ruptured, might, from the peculiar position of the arm, have been thrown into strong action, and so have drawn the head of the radius suddenly towards the ulna, while the force continuing, pressed it upwards and forwards on the condyle. Whether a strong and somewhat irregular action of this muscle, while the hand was in pronation, would cause the upper part of the radius to approach the ulna, I am not quite prepared to say, but I think it probable that it might do so, especially after the annular ligament had been ruptured, and displacement had occurred.

CASE OF ABSENCE OF THE UTERUS.

By E. P. BENNET, M.D.

OF DANBURY, CONNECTICUT.

In December, 1833, I was called upon to prescribe for Miss —, a young lady of about

eighteen years of age, for retention of the catamenia. She had suffered regularly every month, for the last two years, the usual symptoms of indisposition attendant upon menstruation. She was well-formed, of good stature, with well developed breasts. I prescribed for a length of time the usual remedies in such cases, but, contrary to my expectations, without the least benefit. Her general health was improved, but the menses did not appear. The obstinacy of the case led me to suspect organic obstruction. I mentioned this to her friends, and proposed an examination, to which she finally consented. The external organs of generation were perfectly developed in every respect, and perfectly natural. Upon introducing my finger into the vagina, I found that this canal terminated in a cul-de-sac, at the distance of two inches from the os externum. It did not appear like a membrane stretched across this canal, but like a complete obliteration of it. There was no indication of any accumulation of menstrual fluid behind it, although there was a slight enlargement of the abdomen. I introduced a common lancet into this substance the length of the blade, but it penetrated into no cavity; the hæmorrhage was considerable, and as I had had no experience in such cases, I desisted from doing anything more. Soon after this my patient married, and I lost sight of her for several years. In August, 1840, she again applied to me for relief. She stated that she had enjoyed poor health generally, but occasionally she had had *monthly periodical discharges of blood per anum*, which relieved her, but of late they had entirely ceased. I examined her again, and found her in exactly the same condition as before marriage, only the finger could be introduced a little farther by carrying the obstruction before it. I then introduced a finger into the rectum, and a silver catheter into the bladder, and searched for a uterus, but could detect nothing of the kind, my finger coming in contact with the catheter, as in the male subject. In consequence of the discharges from the rectum, I thought there might possibly be a communication between the uterus and rectum, but I could detect none. I accordingly concluded that the uterus did not exist, and that the development of the external organs and breasts, and the presence of venereal desires, were produced by the ovaries alone. I stated to her and her husband my views of her situation, explaining the dangers, difficulties, and the uncertainty of an operation, and dissuaded her from having anything done. In a few days her husband called upon me, and said that she was resolved upon an operation, be the consequences what they might. In compliance with her earnest desire, but contrary to my own judgment, I proceeded to operate, assisted by my kind and judicious friend, Dr. A. L. Williams, of Brookfield. I placed her upon the edge of a bed, with her feet upon two chairs, her knees supported by assistants. I then introduced a silver speculum of three-fourths of an inch diameter with some difficulty, (as the vagina was quite narrow,) then with the aid of a strong light I proceeded to make an incision with a scalpel, which I had previously prepared, by making a cutting edge upon the end. The substance was very dense and firm, and required considerable force to push the knife onward, which I did in a very cautious manner, until I had made an incision large enough to admit the point

of the index finger; then, with a finger in the incision and one in the rectum, I examined to see where I was. I then withdrew my finger from the rectum, and, by moving the catheter in the bladder, found that as yet I was going correctly. In this way, by cutting, tearing, dilating, and examining, I proceeded on until I had penetrated about three inches into this substance, when the knife appeared to enter a cavity. I suspected at once that I had entered the cavity of the abdomen, but upon introducing a male silver catheter, straightened for the purpose, I found that it stopped abruptly after entering about six or seven inches from the external orifice. Considerable hæmorrhage followed, and she complained of severe pain in the bowels and loins. I introduced my finger, which passed readily up the whole length, but could detect no uterus. I introduced a gum elastic tube, the size of the ring-finger, six or seven inches, put her to bed, and gave a pill of opium and calomel. She wore this tube for six weeks, during which time it was taken out several times, and an endeavour to introduce a larger one made, but this was impossible. So great was the tendency to contraction, that if the tube was left out for two or three hours, it was very difficult to introduce it again. She suffered much from pain and inflammation in the bowels, having several attacks, which were relieved by venesection, calomel and opium. At the end of six weeks she discontinued the tube, and the incision soon closed, so that she is now in the same condition as before the operation.

[The preceding case is an exceedingly interesting one, and the careful manner in which the examination was conducted, as well as the condition of parts developed by the operation, seem to leave no room to doubt that the uterus was entirely deficient.

It may not be considered entirely out of place here to invite attention to operations performed to gratify the wishes of patients—or, as they are termed by the French, "*Opérations de complaisance*."

It has been remarked, and we believe on good foundation, that such operations rarely terminate favourably; and although that performed by our correspondent be an exception to the rule, a sufficient number of cases might be cited from the records of our science to establish its truth. A few of these we shall briefly notice.

In January 1829, a man, 21 years of age, entered the *Hôtel Dieu de Paris* with a congenital deformity of his right leg, and urgently begged that the limb might be removed. The pain and risk which he would incur were fully represented to him, but as he still persisted in desiring the operation, Dupuytren amputated the leg. The patient was young, and his constitution good, nevertheless the result was fatal.

Sabatier amputated a leg in a similar case, and the termination was equally unfortunate.

Dupuytren has seen the most severe consequences from the amputation of a malformed toe; and death to result from the extirpation of a supernumerary finger.

Dr. Desgranges, of Lyons, reports a case of urinary calculus, in which he operated to satisfy the urgent desire of the patient, and death followed on the third day.

One of the most striking cases we remember to

have met with on record, is that of a servant who entered the *Hôtel Dieu de Paris*, with an ulcer of his leg of many years' duration, which he had long sought in vain to have permanently healed; and as it gave him much inconvenience, he solicited Pelletan to amputate the leg. This distinguished surgeon at first refused, but ultimately yielded to the urgent importunities of the patient, after fully representing to him the sufferings and risks he would incur. For a day or two every thing seemed to promise success, but serious symptoms then supervened, violent inflammation of some important organs took place, and the patient was soon conveyed to his tomb. Just before his death, he collected his strength, and rising up in his bed, with an eloquence which could not have been expected from an uneducated man, he reproached Pelletan in the severest terms for having been so weak as to yield to his solicitations to be operated on. Having uttered this censure, he fell back and expired. Pelletan was deeply affected, and long remembered the painful scene.

It seems to be considered by most surgeons, that, when they have laid before their patient all the risks of an operation, if he still desires its performance, they are relieved from all responsibility as to the result. Even if this were the case, which we are not, however, prepared to admit it to be to the full extent, still the consciousness of having hastened the death of a fellow-creature, must be a most painful feeling to a sensitive mind. This consideration should be sufficient to deter surgeons from performing unnecessary operations, and lead them firmly to refuse to operate merely to gratify patients.]—*American Journ. of Med. Sciences*. April, 1841.

SCIENTIFIC CONGRESS AT TURIN.

A CONGRESS of the scientific men of Italy was held at Turin, in the month of September last. Several medical observations were submitted to the Congress, of which the following are the most worthy of notice.

M. Lignoli, having performed numerous experiments on living animals, combated the received opinion of the regeneration of vessels, nerves, and bone, under the influence of inflammatory action; this doctrine was warmly opposed by several of the members present, and particularly by M. Tommassini.

Dr. Parola read five cases of chronic bronchitis and tubercular phthisis cured by the use of *secale cornutum*, with the assistance of antiphlogistic remedies. M. Chiappa mentioned the numerous experiments which he had made with this substance during four years: he thought that it was a contra-stimulant, analogous to *digitalis*, but not possessing its influence over the heart. M. Alliprendi rather thought that the ergot of rye was a direct stimulant, while M. Michelis attributed to it an elective action on the contractility of the fibro-membranous canals of the capillaries. Tommassini and other members supported the opinion of M. Chiappa, for the following reasons:—

1. The ergot of rye is chiefly useful in cases of hyposthenia.
2. When administered singly in cases which

evidently depend on an excess of stimulus, it acts like blood-letting. Dr. Marianini related three cases of tænia successfully treated with alcoholic extract of the pomegranate root.

Dr. Nardo read a paper on the use of oxalic acid in inflammation of mucous membranes. The action of this acid is more marked than that of any other vegetable acid, and in addition it possesses the property of instantly calming the severe pain which frequently accompanies inflammation of the mucous tissues. M. Nardo has chiefly employed the oxalic acid in inflammations of the lining membrane of the mouth, in gastritis and gastro-enteritis; in the aphthous affections of children, and all kinds of ulcers. The formula employed by M. Nardo is—

Gum arabic emulsion . . 3 ounces;
Oxalic acid 3 to 6 grains;
Raspberry syrup . . . 1 ounce.
A teaspoonful to be taken frequently.

Dr. Polli spoke highly of the efficacy of the bulbous ranunculus in cases of sciatica: he peels the bulb, and applies it to the heel; a blister is soon excited, and the pain becomes intolerable. M. Nardo, also, spoke highly of this method; and M. Freschi said, that for many years he had employed it with benefit at the hospital of Cremona.

M. Cherardi communicated a new method of treating hydrocele; this consists in introducing through the canula a small bit of cotton, impregnated with ammonia; in ten or twenty minutes this excites excessive pain, when it should be removed; adhesive inflammation soon sets in and obliterates the tunica vaginalis. M. Riheri informed the meeting that he had several times succeeded in curing nevus maternus, by piercing the base of the tumor with a needle, and injecting wine into it. He also described an operation for the cure of salivary fistula, which consists in laying open the cheek, then tying the open extremity of the canal, bringing the ends of the ligature into the mouth, and then healing the external surface of the wound by the first intention.—*Journal des Con., from il Observ. Med.*

MEDICAL MEETING IN MARYLEBONE.

A MEETING of medical gentlemen, electors of the Metropolitan Borough of Marylebone, took place on Monday evening last, at Lawson's Rooms, Gower-street North, when it was moved, seconded, and carried unanimously, that a deputation should wait on the candidates for the borough, to obtain their promises to be in their places when any subject connected with the medical profession would be brought forward in the House of Commons, and also to request them to direct their attention to the medical clauses of the Poor-law Amendment Bill.

The deputation saw Sir B. Hall and Sir C. Napier, on Tuesday last, at 12 A.M. They were received in the most courteous manner by both candidates, and obtained their promise to pay the utmost attention possible at any time any matter touching the medical profession might be brought forward. Sir B. Hall and Sir C. Napier were of opinion, that in parishes and unions, the best qualified man should always be employed without

reference to salary. Sir C. Napier, in answer to a question from Mr. Simpson, stated that assistant-surgeons in the navy were much more respected, and much more comfortable than they used to be. Their mess in the gun-room was as good, and *less expensive*, than that of the ward-room, particularly since mates had been made commissioned officers. He was decidedly of opinion, that assistant-surgeons in the navy ought to have cabins for themselves to read and study in. The deputation (consisting of ten or twelve medical men) departed quite satisfied, that in the event of Sir B. Hall and Sir C. Napier being elected members for the borough, all questions on medical subjects would be zealously attended to by them. Another deputation was to have waited on the two Conservative candidates, but as yet they have not had an interview.

MEDICAL CONFERENCE.

THE following address has been agreed to by the members of the Conference now in town:—

"The metropolitan and provincial delegates, in medical conference assembled, to their brethren in the profession, and especially to their fellow-members of the several medical associations.

"GENTLEMEN,—The time is at length arrived when, by a proper, judicious, and efficient exercise of their electoral privileges during the approaching struggle of parties, consequent on the dissolution of parliament, the members of the medical profession may secure to themselves a just and legitimate influence in the great council of the nation, so as to attain the important object of *medical reform*, for which the different medical associations have been steadily and strenuously contending for several years.

"The difficulties hitherto encountered in the accomplishment of that object have not so much depended on the opposition of interested parties, or the stand made against it by the corporate bodies, who strive to defend their respective monopolies, as upon the entire ignorance of the members of the legislature on the subject of medical politics, and the existence of the many extraordinary anomalies, incongruities, and abuses which mark the present state of medical legislation in this country. Could but those who are called to sit in parliament be enlightened on such subjects, the members of the medical profession, like those of every other influential body in the community, would soon find themselves respected by the legislature, their rights to the support of government acknowledged, and their dearest interests secured from farther inroad and usurpation.

"Hitherto hardly a medical question has been proposed in parliament, which has not been treated with indifference or neglect; hardly a medical interest of any public nature submitted to the house, which has not found a ready extinction at the hands of those who, either through interest, misrepresentation, or from sheer personal ignorance of the matter under consideration, were induced to disregard the rights of the many for the claims of the few. This state of things must not endure; nor would it have existed so long, had the mem-

bers of the legislature been versed in medical politics. Let them but become enlightened in that respect, and the members of the medical profession may well leave to their shifts those who oppose medical reform, or aim at defeating it by the semblance of partial and paltry concessions.

"The delegates of the medical conference assembled in London, who have been charged with the great trust of watching over the interest of the profession at large, deeply impressed with the force of these truths, and seeing in the approaching general election the very best and most effectual means of putting an end to the state of things to which they have alluded, and which they so much deprecate, call upon their medical brethren throughout the realm (for they have but one cause in England, Scotland, and Ireland) to attend, as they love their dearest interests, to the important resolution passed at the last half-yearly general meeting of the British Medical Association, by which it is declared that it is the duty of every member of those associations, as well as of the profession generally, of every rank or degree, to exert himself, first, in enlightening every candidate for a seat in parliament, touching the necessities of the medical profession, and the want of a thorough reform of medical abuses; and secondly, in exerting their interest, professional or otherwise, as well as by vote, so as to secure the return of such candidates only as shall promise to give consideration and support, in an earnest and efficient manner, to any act of full and general medical reform which may be prepared and introduced into parliament, with the sanction of the medical delegates from the metropolis and the provinces.

"Without such exertion the reformers will have again to struggle in vain before a new parliament for the attainment of their just wishes. Now or never must be their motto throughout the land. No body of men exercise a greater or more legitimate influence over the minds of those who stand in need of their aid than medical men—in the country their influence is unbounded. Let it, then, be exercised in the good cause; for the sake of the public, whose interest is the interest of the profession, cast aside, brethren, for the moment, and for this once, all party bias, all political propensity, and at the approaching election keep only this one single consideration steadily in view—that none shall be invested by your help with the high and enviable privilege of enacting laws for Great Britain, but such as shall promise to embrace, among the many other important and mighty interests of the community, that of Medical Reform also, and apply his mind and energies to the best mode of conferring that one great boon on the medical profession, for which our labours began, and having which, our labours will end."

(Signed) A. B. GRANVILLE, W. SHARPEY,
MARSHALL HALL, W. FARR, G. WEBSTER,
R. DAVIDSON, and R. D. THOMSON.

Dub. Med. Press.

DIMINUTION OF MORTALITY

AND OF

ALCOHOLIC SPIRITS CLOSELY ALLIED.

To exhibit the effect upon the mortality, of diminishing the employment of alcoholic fluids, it is only necessary to examine the following table of the troops in Bengal, out of the same population.

	Consumption of Spirits.	Mortality.
1832	10,000 to 14,000 Gallons.	76
1833		
1834		
1837	2,000 to 3,000 Gallons.	26
1838		

Hence it appears, that by diminishing the consumption of spirits to one-fourth, the mortality was reduced to less than a third.

It would be interesting if we could determine, from the diminution in the quantity of spirits, the reduction of mortality. In this case, the mortality in Ireland should be reduced one-third; for in 1838, the quantity of spirits consumed in that country was 12,332,724 gallons, and in 1840, 7,593,466 gallons, indicating a reduction of 39 per cent.

I regret to observe, that in India it has been recommended, by men who ought to know better, that beer should be substituted among the troops, for spirits; upon the principle, I suppose, that "one fire burns out another's burning." The testimony of Dr. Mosely, a distinguished writer on tropical diseases, is a sufficient answer to all such fallacies, and cannot be too often quoted: "I aver, from my own knowledge and custom," says he, speaking of the West Indies, "as from the custom and observation of others, that those who drink *nothing but water*, are but little affected by the climate, and can undergo the greatest fatigue without inconvenience."

FEMALES LONGER LIVED THAN MALES.

It cannot fail to be remarked as a *striking fact* connected with human mortality, that notwithstanding the peculiar and more severe diseases to which females are necessarily exposed, and their more delicate constitution, they are longer lived than males. The average age of males in England and Wales in 1838 was 44, while that of females was 47, giving an average of 7 per cent. of excess of mortality of males over females; this fact is the more remarkable, when we consider that upwards of $\frac{1}{10}$ th of all the deaths in the metropolis arise from diseases peculiar to females, while they are equally exposed to all other diseases of a mortal nature. To what are we to ascribe the circumstance, then, that the lives of females are three years more valuable than those of males? We believe that temperance and more regular habits are among the causes, and that our view will be borne out by the opinion of those who have considered the subject with attention.—*From an interesting lecture by Dr. R. D. Thomson recently published.*

NERVES OF THE UTERUS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—You mention at page 236 of your last number, that you have seen the beautiful

dissections of Dr. Lee, and that you are convinced of two facts—1st, that the nerves of the gravid uterus undergo a very remarkable and manifest degree of development; and 2nd, that the greater part of the filaments displayed in the dissections are nervous filaments, and not fibrous or cellular membrane. However much disposed to place reliance upon your opinions, because I know that you have carefully dissected every part of the nervous system, still I am at a loss to reconcile your opinion with that of Mr. Hunter, Professor Owen, and Mr. Kiernan.

Mr. Hunter declares that the nerves of the uterus are not in the smallest degree increased during pregnancy. Mr. Owen and Mr. Kiernan, who examined, with the microscope, small portions of the plexuses on the body of the gravid uterus, which had long been kept in strong alcohol, decided that they were not nervous plexuses, but bands of elastic tissue, gelatinous tissue, or cellular membrane.

The subject is one of the greatest interest to all anatomists, physiologists, and you would therefore confer a favour by stating the grounds upon which your opinion rests, that the great plexuses described and figured in Dr. Lee's work are true nervous plexuses, and not bands of elastic tissue or cellular membrane.

I remain yours,

SCRUTATOR.

June 21, 1841.

[We believe the tissues displayed in Dr. Lee's dissections to be nervous:—1st, from the general appearance of the large ganglion at the lower and back part of the uterus, with which many of the filaments are evidently connected; and, 2nd, because we defy any one so to cut up or arrange elastic and cellular tissue, as to represent the regular distribution of any system of nerves in a continuous series of preparations.—Eds.]

MR. HALTON'S CASE OF SUBCLAVIAN ANEURISM.

TO THE EDITORS OF THE "PROVINCIAL MEDICAL AND SURGICAL JOURNAL."

GENTLEMEN,—In your report of a case of subclavian aneurism, communicated to the Royal Medical and Chirurgical Society by Sir B. Brodie, in which a ligature was successfully applied by Mr. Halton at the Liverpool Infirmary, I beg to correct an error of the press. The author's name is reported Hulton instead of Halton. I may add, that the subject of the operation is now gate-porter at the hospital.

I remain, gentlemen,

Your most obedient servant,

THOMAS BRANDRETH,
House Surgeon.

Liverpool Infirmary, June 9, 1841.

TEMPERATURE OF ROME.

DR. DEAKIN has published a series of tables exhibiting the results given, at Rome, by the thermometer, barometer, and hygrometer, during the months of November and December, 1840, and the first four months of 1841; he has also given the mean maximum and minimum temperatures of the same months during the years 1838, 1839, and 1840. During the months of November and December, (1838-9,) and January, (1839-40,) the mean maximum temperature was 54½; the mean minimum, 41½. During the months of February, March, and April, (1839-40,) the mean maximum was 57·83; the minimum 43·66. The observations were made at 9 A.M., 1 P.M., and 9 P.M.

BOOKS RECEIVED.

Examen du Rapport sur la Question de la Dissolution des Calculs Urinaires. Par Leroy-d'Etiolles, M.D. Bailliere, Paris, 1839. 8vo. pp. 70.

Considérations, Anatomiques et Chirurgicales, sur la Prostate. Par Leroy-d'Etiolles, M.D. Bailliere, Paris, 1840. pp. 36.

Exposé Sommaire des Ouvrages, Mémoires, Travaux Scientifiques, et Inventions du Dr. Leroy-d'Etiolles.

The Baths of Nassau, Baden, and adjacent Districts, considered with reference to their remedial Efficacy in Chronic Disease. By Edwin Lee, Esq. M.R.C.S. Galignani, Paris; Jugel, Frankfurt.

The Mineral Springs of England, and their curative Efficacy, &c. &c. By Edwin Lee, Esq., M.R.C.S. Whittaker and Co., London, 1841. pp. 124.

On Stammering and Squinting, and on the Methods for their Removal. By Edwin Lee, Esq. M.R.C.S. Churchill, London, 1841. 8vo. pp. 88.

An Address to the Members of the Parisian Medical Society, at the Opening of the Summer Session, 1841. By James Henry Bennet. Paris, 1841.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, June 18, 1841.—John James Cathcart, Edward Hoskins, George Nathaniel Grane, Orlando George Bell, Henry Young, Edwin James Isbell, Hugh Crawford Walshe, John Barton Harrison, William Smith, James Williams, John Thomas, John Fenton, James Crocome.

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CLINICAL LECTURES

IN COURSE OF DELIVERY DURING THE PRESENT SESSION,

AT

GUY'S HOSPITAL.

By JOHN MORGAN, Esq.

(Published with permission of the Lecturer.)

WEDNESDAY, JUNE 2, 1841.

LECT. V.—*On the operations performed for the removal of cataract.*

GENTLEMEN,—I need scarcely tell you, that by the term cataract is understood an opacity of the crystalline lens, of its capsule, or of both; and that the presence of cataract is recognised by this opacity existing in a greater or lesser degree, immediately behind the pupillary aperture. Neither need I enlarge upon the causes, symptoms, and diagnosis of this affection; but having already done so in my lectures on Ophthalmic Surgery, shall proceed at once to the consideration of the means employed for its removal. Now the treatment of cataract consists in the removal of the lens and its capsule, by some surgical operation; for we possess no constitutional remedy nor local application, which afford the slightest hope of effecting anything like a cure. Your object, therefore, is to remove the opaque body from the axis of vision by some mechanical means, and there are three methods of fulfilling this object, namely, extraction, depression, and solution.

The operation by extraction consists in making a section of the cornea, of sufficient extent to allow the lens to pass from the interior of the eye through the wound, after having passed through the pupillary aperture. The divided surfaces subsequently adhere, the escape of the humors of the eye and protrusion of the iris is prevented, and, with the exception of the loss of the lens, the eye is restored to its former form and condition.

Depression of the lens is accomplished by pushing it from the axis of vision downwards and backwards into the vitreous humor. It then either becomes absorbed, or remains without producing irritation of the parts around it.

In the operation for solution, the lens with its capsule are cut up and brought forward into contact with the aqueous humor, by which it first becomes dissolved, and afterwards absorbed.

I shall first describe the operation for extraction, premising that the patient has been subject to a judicious preliminary treatment, with the view of reducing vascular action, and ensuring a healthy performance of the functions of the different organs of the body, thereby guarding against the occurrence of undue inflammatory action as a consequence of the operation. The operation is divided into four steps—section of the

cornea, laceration of the capsule of the lens, adaptation of flap in cornea, and dislocation and extraction of the lens; and the first thing to which you must attend, is the position of the patient, who is either to be placed in the recumbent posture, which is the best and safest, or seated in a high-backed chair, similar to those used by surgeon-dentists in extracting teeth. Now I place this man before you in the latter position, and you see my assistant stands behind him, and raises the upper eyelid with his forefinger, taking care not to make pressure on the globe, but placing the finger on the supra-orbital ridge, draws the integument upwards, thus separating the opposed surfaces of the conjunctiva of the lids and globe. You take care that the light falls on the eye from the side, and rather from above, or you will find, when you come to use the knife, that the rays of light are reflected so strongly, and in such various directions, that you are unable to see what you are doing. You then sit, as I do now, opposite the patient, on a stool of such a height that his head is on a level with your breast, and with the fore and middle fingers of your left hand depress the lower eyelid, still being very careful not to make pressure on the globe. If you did so, as soon as you had punctured the cornea, the aqueous humor would escape, and the iris would be folded over the edge of your knife, which must then, of course, be instantly withdrawn, and this first step of your operation rendered unsuccessful.

Now you may perhaps suppose, that by the application of belladonna to the eyebrow, and the consequent dilation of the pupil, the passage of the lens through that part would be facilitated during the process of extraction; but such is not the case, and no advantage is thus gained, and for this reason—as soon as your knife has made way for the escape of the aqueous humor, at that instant the pupillary aperture is contracted; for, under these circumstances, it is found that the iris can withstand the stimulus of light, but not that of local contact, and thus you are placed in the same position as though no belladonna had been used. Still, to an inexperienced operator, a wide pupil offers this advantage—that if he awkwardly passes the point of his knife directly backwards towards the lens, but the iris has escaped a wound in making the first puncture, the knife completely crosses the pupil before it becomes entangled in the iris on the opposite side, and consequently before contraction takes place on the necessary withdrawing of the knife. Thus as much of its blade will have entered the anterior chamber before its point can touch the iris, as will insure a sufficient opening for the introduction of another form of instrument, by which the section of the cornea may be completed, which would not have been the case, had the immediate entanglement of the point of the knife in the iris obliged you to withdraw it almost as soon as it had entered.

The patient, then, being in the position of the man you see before you, you are to make a section through one-half of the circumference of the transparent cornea, at the distance of one line from its junction with the sclerotic, entering the point rather above its transverse diameter; but before you commence this section, it is always advisable just to touch the conjunctiva on its inner side with the finger-nail, when depressing the lower lid, in order to prevent the eye rolling inwards after the commencement of the operation, as the globe is always rolled away from the point of contact. It is well also to pass the edge of the handle of the knife over the surface of the cornea, to accustom the latter to this slight stimulus, and thereby also diminish the rolling of the eye, when first touched by the point of the knife.

With regard to the knife you may make choice of, it is of very little importance whether you use that recommended by Beer of Vienna, or the one always employed by Baron Wenzel, both of which I now show you; but whichever you prefer, the handle is to be held between the thumb and fore-finger, or thumb and fore and middle fingers, the ring and little fingers resting on the cheek. A rest for the elbow will also be a great assistance to the aged, tremulous, or nervous operator. The point of the knife is now to be passed through the cornea into the anterior chamber, at the distance of one line from the sclerotic margin of the cornea. It should be first passed in a direction directly backwards towards the centre of the pupil, in order that you may convey it at once into the anterior chamber, instead of merely passing it between the layers of the cornea—an occurrence much more liable to happen than you would suppose, and then—as you will readily perceive, the undivided layer would prevent the exit of the lens. Now, the section of the cornea may be made either through its upper or lower half, or obliquely from above downwards, in either case carrying the blade of the knife on a plane parallel with that of the iris. The section is completed by pushing the point of the instrument (the direction of which is now changed) onwards to a point on the opposite side corresponding to that at which it entered, and by gently drawing the edge of the knife through the cornea, as its blade is pushed onwards. (Mr. Morgan here demonstrated this part of the operation on the eyes of sheep and oxen.)

Now the principal difficulties you may meet with in this step of the operation, are rolling of the globe of the eye inwards, and premature escape of the aqueous humor, with its consequences. Rolling of the globe inwards is so apt to occur, that I always prefer making the section of the cornea obliquely from above downwards, because when this is done, the motion of the eye itself, in turning inwards, tends to draw that part of the cornea which it is your intention to divide against the edge of your knife; whereas, in making the upper and lower transverse sections with a rolling globe, you can scarcely complete either without wounding the parts at the inner angle of the orbit, in following the receding cornea. If the cataract is in the right eye, and you are not able to use your left hand dexterously, it is always better to make the upper transverse section, holding the patient's head against your chest, and raising the upper lid with the fore and middle fingers of the

same hand, while your assistant depresses the lower lid. The advantages of this upper section are, that the aqueous humor does not so readily escape, and the probability of prolapsus of the iris is consequently less. Besides this, the operator has a much more perfect command of the organ by fixing for himself the upper lid, and the flap of the cornea is subsequently kept in apposition much better by the upper than by the lower lid.

If it should happen that the aqueous humor has escaped before the section of the cornea is completed, the iris becomes folded over the edge of the knife, and if you proceed with the operation, the iris is necessarily wounded. Under such circumstances the best practice is to withdraw your knife immediately, and then insert the small probe-pointed bistoury I now show you, through the wound of the cornea, and with this bistoury complete your section. Some operators, and one especially of high reputation in this city, make a point of always using this knife in the operation for extraction. They puncture the cornea with the knife of Beer or Wenzel, then insert the small probe-pointed bistoury, and thus complete the division of the cornea. This operation is a very safe one, and one which I should advise you to follow, until you have acquired dexterity by practical experience.

Now it frequently happens, more particularly when the eye is improperly held and pressure is made on the globe, that as soon as the section of the cornea is completed, the lens instantly escapes with a portion generally of vitreous humor, and the operation is completed. But this, under ordinary circumstances, is prevented by the continuity of the capsule, and then the latter must be lacerated by inserting the curette through the wound in the cornea, and passing its sharp curved extremity several times across the anterior surface of the capsule; in other words, scratching through it, taking care that the curette does not get entangled in the iris, either in its introduction or withdrawal. You then make gentle pressure upon the globe of the eye with the spoon-shaped end of the curette, and the lens is displaced and forced through the pupillary aperture and the wound in the cornea. The escape of a small portion of vitreous humor is not uncommon, when you have an awkward assistant, and sometimes, indeed, from sudden contraction of the muscles of the globe, but it is of no very great consequence if the quantity lost is only trifling.

If a greater or less prolapsus of the iris, or a small portion of vitreous humor, prevent the perfect contact of the cut edges of the cornea, it will be well to raise the flap with the spoon-shaped end of the curette, and endeavour to replace the parts. Great advantage is gained by throwing a pretty strong light on the eye to cause contraction of the pupil, and thus draw the iris from its prolapsed situation.

With regard to the treatment of the patient after the operation, he must be kept in a dark, cool, well-aired room, and you must take every precaution to ward off inflammation. Do not let him remain in the recumbent posture, but have the head and trunk well raised by pillows. Saline purgatives will be useful, but you must especially avoid all powerful cathartics, or the violent straining of the patient at stool will produce such congestion about the head, that the humors of the eye

will be forced through the open cornea, and the organ inevitably lost, an occurrence which I have witnessed more than once. Vomiting will obviously have a similar effect in evacuating the humors of the eye, and from this you may learn the necessity for depletion previous to the operation, for bleeding subsequently almost certainly produces nausea and vomiting. Generally speaking, by the fourth or fifth day, the union of the cornea is completed, and the patient may get up, but sometimes inflammation of the cornea and conjunctiva come on within the first eight-and-forty hours. If so, you must bleed and treat the case on general principles. If iritis comes on, it usually does so about the third or fourth day, attended by pain at night, increased lachrymal discharge, discoloration of the iris, and effusion of lymph upon its surface. In this case you must deplete pretty freely, and give mercury till its effects on the system are established. In some cases, especially in old people, you will have chemosis of the conjunctiva, altogether unconnected with acute inflammatory action, presenting the appearance of a semi-transparent membrane bagging forwards around the circumference of the cornea, as if filled by a gelatinous substance. This is a mere cedematous tumefaction of the conjunctiva, but it produces such pressure on the divided edges of the cornea, and on the entire membrane, that it gives rise to undue inflammation, and thereby prevents union by adhesion, thus allowing a prolapsus of the iris through the ununited wound in the cornea. Your treatment, therefore, will consist in taking off this pressure by dividing freely the cedematous parts, and thus, by scarifying the conjunctiva freely from time to time, you will endeavour to remove this cause of interruption to the healthy process of redress. True inflammatory chemosis will, of course, require far more active treatment.

The time is now so nearly expired, that I must defer the description of the operations by depression and solution until next Wednesday, when I shall also refer to some of the diseases of the eyelids and lachrymal organs.

COURSE OF CLINICAL LECTURES

ON

SURGICAL DISEASES,

DELIVERED AT THE HOSPITAL OF LA CHARITE
BY PROFESSOR VELPEAU.

LECTURE VII.

ON PURULENT ABSORPTION.

GENTLEMEN,—I shall continue the subject of my last lecture, by relating to you some cases of purulent absorption.

CASE I.—*Compound fracture of the leg—constitutional symptoms on the 12th day—death on the 18th day—innumerable abscesses in the heart, spleen, liver, kidneys, brain and lungs—pus in the clots of the right side of the heart.*

In the spring of 1818, a young healthy man had the left leg fractured by the falling of some earth in a quarry, where he was employed. When

brought to the hospital, it was found that both bones of the leg were broken, with extensive laceration of the soft parts on the inner side of the limb. Amputation was not thought necessary; during the first week the patient did well, but the discharge of matter became profuse, and of a grayish colour; the ends of the bones were denuded, and on the 12th day the integuments of the thigh were attacked by erysipelas; the patient was a little feverish, and had some shivering; the discharge diminished. On the 14th day the erysipelatous inflammation had considerably extended, and the febrile symptoms were extremely violent. The edges of the wound now appeared to be flaccid and pale; the bones were denuded to the extent of two or three inches, and a great quantity of dark, foetid fluid was discharged. On the 15th day, this discharge had nearly ceased, but towards evening the patient became delirious. The skin was dry; the pulse small and hard, but not frequent; the tongue dry, but clean; he did not complain of any pain, but was dejected and frequently stupid. The different cavities were now carefully examined; nothing, however, could be discovered. On the 16th day, the typhoid symptoms were of the severest kind, and the patient died on the 18th, at six o'clock in the morning. The body was examined on the following day.

Cranium.—The membranes of the brain were healthy; but in the substance of the hemispheres close to the convolutions there were fifteen or twenty abscesses; the surrounding nervous tissue was most carefully examined, but no trace of inflammation could be discovered, or other change. The ventricles contained about two ounces of clear serum. In the lungs we found eight or ten of the same kind of abscesses as in the brain; the contained matter was somewhat thicker, and the surrounding tissue was slightly reddened, and less crepitant than it should be.

Abdomen.—There were two or three abscesses in the kidneys; the liver and spleen were completely studded with them; some of those in the liver were as large as nuts; the surrounding tissue appeared at all points to be quite healthy.

Vascular system.—There were several abscesses in the muscular substance of the heart, the matter being merely deposited between the fibres: the right side of the heart was filled with a fibrous clot, which manifestly contained pus: a similar clot existed in the inferior vena cava. The veins of the injured limb were filled with fluid, grayish pus, and presented here and there marks of inflammation, as far up as the junction of the saphenal with the femoral vein. The cellular tissue, surrounding the inflamed portions of the vein, was also inflamed and infiltrated with pus, but in the intervals it was healthy; no alteration of the stomach or intestines.

Remarks.—This case presents many points of interest. During the first eight days there were no symptoms of reaction; the suppuration was abundant and healthy; from the 8th to the 12th, the nature of the discharge became altered; the thigh was attacked by erysipelatous inflammation; the patient was seized with rigors, and some other constitutional symptoms; up to the 17th, the inflammation increased, but then diminished; the symptoms now were delirium, with a kind of coma vigil; headache, and ataxic phenomena. Finally, the patient sank on the 18th, without

our being able to detect or even suspect any lesion of the viscera contained in the great cavities of the body. We may now ask what connexion existed between the symptoms during life and the post-mortem appearances? Did inflammation extend from the wound to the rest of the limb; or did it, by general sympathy, excite inflammation in the other organs? such an explanation is quite unsatisfactory. The inflammation did not extend gradually from the leg to the thigh; it was not more severe in the former part, at the time of its attacking the latter; it was never sufficiently severe to account for such dangerous symptoms in a young man of sound constitution; and finally, the abscesses were formed too rapidly to be an effect of consecutive inflammation.

Can we suppose the existence of phlebitis extending continuously to the thigh, and exciting partial inflammation afterwards in various parts of the body? or, admitting this partial inflammation, might they not depend on inflammation of the veins in the organs where the different abscesses were found?—Even this theory cannot be accepted, although much more plausible a one than the former. The veins of the injured limb were inflamed here and there only, and no trace of inflammation could be discovered around the numerous abscesses of the chest and abdomen. We must turn, then, to some alteration of the fluids, as a means of explaining what occurred.

The veins of the injured limb became charged with pus, either through the lymphatics directly, or by imbibition. This matter circulated for some time with the blood, without causing any great disturbance; but as it became altered in quality, or increased in quantity, it excited inflammation of the veins of the thigh; the latter gave rise to inflammation of the cellular tissue surrounding the veins, and the pus thus produced was also carried into the circulation. Thus we can readily conceive that the blood surcharged with purulent matter may have deposited the extraneous element in those organs which were best disposed for its reception. This, I think, is the most rational way that we can explain the existence of these metastatic abscesses; for we cannot admit the generation of pus without pre-existing inflammation, nor suppose that pus exists as a normal element of healthy blood, and is deposited under any circumstances from it.

It is now well known that, in spite of vital laws, our tissues readily imbibe various fluids which are placed in contact with them; this fact is proved by daily observation, and clearly demonstrated by the experiments of Magendie, Segalas, &c.: the absorbent power of the veins cannot be denied either; but what many refuse to admit is, that any matter introduced into the blood can act otherwise than by irritating the blood-vessels, or that it can pass from one organ to another without changing its nature.

To this, however, we may reply, if compound substances, such as urea, the colouring matter of bile, semen, alcohol, &c., may circulate with the blood without being decomposed, why should not pus follow the same law? Is animal chemistry sufficiently advanced, to enable to say there is no pus in the blood? Besides, why have recourse to chemistry when the fact is evident? In the case of our patient we found pus in the fibrous clots of the heart, vena cava, and veins of the limb. Hence,

all we have to determine is, whence came this pus: although the matter contained in the vessels of the thigh was, probably, in some measure formed in them, it seems rational to conclude, that a considerable quantity was furnished by the wound; besides, it is certain that the pus found in the heart and vena cava was not secreted by the adjacent tissues. We are then forced to admit that it was conveyed from the circumference towards the centre, and in this case, whence could it be derived, if not from the veins of the injured limb? If we admit that pus reached the heart, it requires little stretch of the imagination to conceive that it may pass thence to the capillary vessels, and be deposited by them in the small cavities in which we discovered it. To this theory it may be objected, that there would be a greater tendency to the deposition of pus in the lungs, than in any other organ; but when we consider the rapid circulation of blood through the lungs, and the immediate influence of the heart on the pulmonary circulation, it is not extraordinary that any foreign substance mixed with the blood should traverse the lungs without being deposited in them; while, on the other hand, the aortic capillary system, being further from the centre, is more disposed to this kind of deposition. It may also be asked, why the purulent fluid should be deposited in one organ rather than in another? many causes may contribute to this; in our present case, all the organs which are rich in blood contained pus, because it was carried to them in greater quantities; besides, if as MM. Prevost and Dumas have shown, the different animal fluids present different varieties in the form and volume of their globules, it is not very extraordinary that pus globules should be separated by a certain order of capillary vessels, after having traversed the general circulation.

Were we able to trace any inflammation around the metastatic abscesses, we should then find a cause more in accordance with received notions; but such is not the case: again, suppuration of the spleen is of very rare occurrence; as also is suppuration of the kidney and heart; besides, the characters of inflammatory suppuration differ according to the organ, but in the cases of which we now speak, the pus presented the same appearances everywhere; the abscesses were all at the same stage, and we must admit a very intense degree of inflammation to account for so large a quantity of purulent matter. Yet how can we suppose the existence of acute inflammation of the brain, sufficient to produce a dozen abscesses in five days, without leaving the slightest trace in the membranes or nervous substance?

CASE II.—Fracture of the ulna—typhoid symptoms—death—abscesses in various organs—purulent matter in the whole of the vascular system.

—Sauvage, 43 years of age, carter, of powerful constitution, fell while getting into his cart; the wheel passed over the right elbow-joint and fractured it; this happened on the 22nd of February. He was admitted into the hospital four hours afterwards; the upper part of the ulna was fractured, and although the skin remained entire, it was easy to see that the soft parts about the joint were considerably injured. He was bled to 12 ounces, and 40 leeches were applied. Up to the 1st of March, the tumefaction increased and extended towards

the axilla, but there was little constitutional disturbance; the patient was bled twice, and 60 leeches were applied along the arm. On the 3rd the swelling had subsided a good deal, but the patient was seized with a violent rigor. On the 4th the abdomen was somewhat tumid; the tongue foul; thirst great; pulse frequent; the man complained of a feeling of prostration. On the 5th he had another violent access of rigor, which lasted two hours; the abdomen was slightly painful: 30 leeches were applied. The abdomen now became tympanitic, the tongue more dirty; the abscess at the elbow now broke spontaneously, and gave exit to a great quantity of matter.

6th. The patient was troubled with diarrhoea; the febrile access terminated in copious sweating; on the 7th and 8th, long-continued rigors, with slight reaction, prostration of strength, and some somnolence. On the 10th, another rigor; pulse small; somnolence; tongue covered with fur; bowels constipated; abdomen free from pain. The patient coughed a little; the accesses of rigor continued during the whole day, and at night there was copious perspiration.

11th. Continuation of the rigors; pulse 80; lower extremities swollen; severe pain in the left heel; the discharge of pus is abundant, and the abscess seemed to communicate with the joint. The patient got much weaker on the two following days. On the 15th and 16th there was no shivering, but the patient was still feebler; respiration broken by sighs. 17th. Slight delirium, with constant somnolence; pulse stronger and more frequent; some shivering; the patient does not make any complaint. 18th. He passed a bad night; mouth very dry and dirty; face pale and sunken; legs much swollen. 19th. Constant delirium; prostration; death at eight o'clock in the evening.

The body was examined forty-eight hours after death. In the *head* nothing remarkable was found.

Thorax.—Small abscess in the lower lobe of the right lung, with slight trace of inflammation of the adjoining pleura; several other small abscesses in the rest of this lung, but no trace of hepatization around them.

Abdomen.—Peritoneum perfectly healthy; mucous membrane of the stomach and intestines presents some red patches here and there.

Limbs and vascular system.—The soft parts in front of the elbow-joint are lacerated and extensively infiltrated with pus; the abscess communicates with the joint, the ligaments of which are almost entirely destroyed. The cellular sheath of the bicipital muscles contains here and there small collections of pus, up to the head of the humerus; the superficial veins are healthy. From the joint upwards, the cephalic vein contains a small quantity of deep-brown matter, which looks like blood or fibrin mixed with pus; higher up the vein evidently contains pus, but the lining membrane of the vessel is everywhere healthy. The deep median vein is lacerated; the extremities which lie in the abscess are red and obliterated; the upper portion of the vein contains purulent matter up to its junction with the brachial vein, where the traces of pus gradually disappear. The coats of the vein are free from alteration.

The cellular tissue of the right leg is filled with reddish serum; the saphena vein is healthy; but underneath the calf there is an abscess, containing about six ounces of pus; the surrounding muscular tissue is pale and very soft; there were several smaller collections of pus about. The posterior tibial and fibular veins, from the abscess up to the ham, were completely filled with pus, so that on looking at them they presented a tense appearance and yellow colour. Their lining membrane is white and thickened, but not disorganised. From the popliteal vein up to the right auricle there is no trace of inflammation, yet the femoral, iliac, and caval veins contain a considerable quantity of pus; nothing is found in the vena portæ, but the same kind of purulent matter exists in the superior cava, the right auricle and pulmonary artery; it can be followed through the ramifications of this latter vessel to the pulmonary veins and aorta. The lining membrane of the vessels is, however, quite smooth and free from lesion at all points.

Remarks.—Gentlemen, if we examine carefully the circumstances of this case, we shall be much at a loss to understand it, if we reject the humoral theory which I have already advanced. Here, also, we were unable to discover any inflammation of the viscera, any lesion sufficient to account for the symptoms. The local inflammation in the arm explains nothing, for it was insignificant at the time that the dangerous symptoms appeared. The inflammatory state of the leg was evidently an effect of some other condition, and the phlebitis was not sufficiently extensive (even allowing it to be primary) to have exercised much influence as inflammation.

On the other hand, we find an easy explanation of all that occurred by reference to the fluids. At first the deposition of pus was confined to the injured part of the arm; the pus was then taken into the system, and this was announced by a very violent rigor; the matter contained in the original abscess became very dry, more irritating from contact with the air, and gave rise to new disturbance; the system made an effort, as it were, to relieve itself of the quantity of pus which circulated with the blood; but the depositions in the lungs and lower extremity only acted as new sources of infection. The blood was now too much altered to serve the purposes of nutrition, and complete prostration supervened; it became still more changed, and the functions of life ceased. It certainly is impossible to demonstrate this manner of viewing the subject, for the medical man is unable to reveal the minute changes of the fluids; but when we reflect on the enormous quantity of pus found in the veins, and on the condition of the blood in the principal vessels, we are compelled to adopt some such theory, unless we admit, contrary to all evidence, that the pus came from the lining membrane of the veins. Finally, you must be struck by the analogy between this case and the preceding one.

CASES

FROM THE EARLY NOTE BOOKS OF THE LATE
SIR ASTLEY COOPER, BART.

EXTRACTED WITH PERMISSION OF R. E. COOPER, ESQ.

No. VI.

IDIOTISM.

I WAS requested to assist Mr. Johnston in opening the body of a girl, who had died at the age of fifteen years, and who had been from her earliest infancy an idiot. The account given of her was, that she never appeared to take notice of surrounding objects—that she discharged her fæces and urine involuntarily—that she was very early attacked with fits, which some time before her death became very frequent, and that she never had been able to walk, her limbs having been wasted, rickety, and deformed. She was a voracious eater.

Her head was larger than natural, compared with her size, and very broad at the summit. The only powers of distinction she ever exhibited, were in knowing her mother from her father, for she never liked to be fed by the latter.

Post-mortem appearances.—On opening the head, the pia mater appeared loaded with water, effused between it and the tunica arachnoides.

The corpus callosum was so thin as to be transparent in some parts, and had white transverse bands appearing at others: its transparency was such as to permit the water in the ventricles to be seen through it. The ventricles were very greatly enlarged, and contained about a quart of water. On cutting the different parts of the cerebrum, small sacs containing earthy matter were found in various parts. The membrane lining the ventricles was in several parts ossified. The cerebellum was natural, except that the fourth ventricle was enlarged.

STONE IN THE EAR.

A child of a Mr. W., aged about six years, pushed a pebble into its meatus auditorius. I was sent for to Clapham to see it, and I could distinctly perceive the stone in the ear; but although I took some hold of it with the forceps, I could not extract it, as it slipped back on each attempt to do so. I ordered a poultice to be applied, and in ten days the stone was discharged, so as to be taken from the ear with the fingers. It gave the child no pain or inconvenience while it remained, not even making it deaf.

SHELL IN THE EAR.

The child of a Mr. E—, was observed to be deaf in one ear, and it continued so without the cause being known about two months, when there was discharged a shell from the ear, which had been picked up from the sea-shore, and which it confessed it had introduced.

INFLAMMATION OF THE BOWELS.

I assisted in opening the abdomen of a child, who, eight or nine days previous to its decease, complained of great pain in the stomach, bowels, and back. For the last three days the pain was exceedingly violent, and just previous to its decease, it vomited and purged a large quantity of white fluid matter.

When the opening was made into the abdomen, a considerable quantity of matter mixed with clots of coagulable lymph was found within. It might

not be well-formed pus, but it had a good deal of resemblance to that fluid.

The peritoneum was generally inflamed. The intestines, particularly the ilium, had suffered much from the same cause. The intestine was of a much darker colour than natural. All the intestines had lines of inflammation in them, where they were in contact with the other intestines, and where they adhered together. The kidneys were somewhat inflamed also.

Observations.—This is a case, amongst many others, in which death is occasioned, not by organization being destroyed, or even the functions of parts being interrupted; for the function, both of the stomach and intestines, was continued until within a few hours of its death; but it seems to have died from the very extensive surface which was inflamed.

I have always observed those red lines on the intestines at the points where they adhere, and this adhesion is a beautiful provision in nature against the extension of inflammation.

ABSCESS IN THE LONGITUDINAL SINUS FOLLOWING INJURY TO THE HEAD.

Mrs. —, aged twenty-two years, was, on the 23d of June, admitted into St. Thomas's Hospital in consequence of a complaint in her head, which had existed about sixteen months previous to her admission, and which was occasioned by a blow that she had received on her forehead, by a chest of drawers falling upon her; such was the force of this blow as to strike her down, and deprive her for a time of her senses; it was not long before she recovered, complaining only of an aching pain in the middle of the os frontis, (the part on which the blow was received.) Upon the examination of this part, there was found a small wound with considerable contusion; this, by the application of a little spirituous lotion, it appears, in the space of a week, or a little more, got well. Still she complained of an oppressive pain, and a sensation of weight upon the brain, which, so far from diminishing at the time the external marks of injury were entirely removed, evidently increased until the expiration of eight months, when the pain had arisen to a most intense degree, so as to be productive of frequent epileptic fits; at length, however, the pain ceased a little, upon a discharge of bloody pus taking place from the ear and mouth. This continued about three days, when it stopped, at which time the pain returned with as great violence as ever, and continued for a fortnight, when a second discharge of matter took place. This, like the former, as long as it continued, was productive of ease, but ceasing, was succeeded by violent symptoms. Thus she went on for a considerable length of time, receiving temporary ease only by these periodical discharges of matter. Various remedies had been made use of with a view of alleviating her distressing symptoms, but all were inadequate; nothing seemed to relieve her but these critical discharges; the more copious they were, and the longer they continued, the more considerable and permanent was the ease obtained. Finding the inefficacy of everything else she took, she made application and was admitted into St. Thomas's Hospital, under the care of Dr. Blane, under whose treatment (which consisted of blisters, opiates, valerian, &c.) she received so much benefit as to be capable, in six or

eight weeks time, of quitting the hospital; but she had not long been absent when the old train of symptoms re-appeared, nor were they at all less severe than at first. On the 23d of June, she was again admitted as a patient under the same gentleman. At this time she had little and disturbed sleep, most distressing pain in her head, a small quick pulse, an entire loss of appetite, great thirst, and general irritability—so much so, that, upon any sudden or great disturbance, convulsions were induced. The pain in the head was still confined to the old spot; viz. that on which the blow had been received; and although there was not at this time, upon the most attentive examination, the least visible mark of disease, yet the least unequal pressure was productive of the most oppressive sensation. The head was shaved, an extensive blister applied, and large doses of valerian administered, but without the least abatement of pain; on the contrary, she evidently grew much worse,—so much so, as to lie for many hours in a state of perfect insensibility: the discharge from her ear was small in quantity, but more constant. In this state she continued for about a month, receiving at intervals some little respite from pain. Upon a supposition that the pericranium or cranium itself might be inflamed, crucial incisions were made, (by Mr. Birch, who had now in part the management of the case,) so as to expose them both. Each appeared sound and in its natural healthy state, and the part was allowed to bleed as much as it would, in hope that such an evacuation might prove advantageous. Notwithstanding this, she continued in an alarming state for three or four days longer, being insensible to every object around her. The wound in her head began at last to alter in its appearance, and suppuration to take place at its edge; she became more animated, and as the discharge increased in quantity, so she continued to improve, till at length she was relieved so as to be capable of walking about, and of taking a sufficient quantity of nutriment. Such means were made use of as were most likely to keep up the discharge from the ear, which became almost constant, but in so small a quantity as only to moisten the cotton which was applied, while that from the wound on the head increased greatly, grew black, thin, and fetid. The pericranium became detached for a considerable extent, it next sloughed away, and exposed underneath a carious skull. She complained likewise of violent and acute pain in the right hypochondriac region, which was greatly increased at every inspiration. A blister was applied, and a dose of laudanum administered, but neither of them caused the least ease. The discharge from the head continued great, and retained every bad property; it began to insinuate itself under the integuments to some extent, and to prevent this, a longitudinal incision, of about three inches, was made, and the wound dressed with tincture of myrrh. It may be worthy remark, that almost immediately after this incision had been made, and some matter evacuated, the pain, which had before been so violent in the side, was perfectly removed. She became, however, more feeble, incapable of taking the least support, could get no sleep, became thirsty, and had frequent rigors. The rigors returned every evening, and were followed by slight transient glows of heat. She became so debilitated, that she scarce uttered a word or moved a limb; her thirst

increased; her tongue was dry, and covered with a brown mucus; her countenance was pale or sallow, her pulse small and quick. She was in constant anxiety, and no symptom seemed wanting to complete her misery. For three days she remained in the same condition, when, upon dressing the wound, a quantity of pus was discovered transuding through a small perforation in the cranium, and which evidently partook of the motion of the brain; this gave rise to an idea that matter might be imprisoned. An opening was made with the trephine, which at once exposed the dura mater in an exceedingly morbid state, not covered with that quantity of matter which might have been expected, but exhibiting marks of great inflammation and incipient gangrene.

The same evening she became much more insensible, and had a muttering delirium; her countenance was yellow, her eyes sunk in their orbits, her pulse became more quick, feeble, and irregular, her tongue was excessively dry and hard, and her teeth were covered with a brown incrustation. The vital energy seemed gradually to diminish, and at eight o'clock the next morning, without any further alteration, (except increased yellowness of the skin,) it terminated in a final exhaustion, after having sustained the disease upwards of nineteen months—a disease which, though treated with numerous medicines, as occasional aperients, opiates, blisters, valerian, hyoscyamus, and various others of the tonic class, received very little advantage from any, nor could it have been expected, had the nature of the disease been perfectly understood.

Dissection.—On examining the head, I found the dura mater under the place which had been trepanned in a sloughy state; and on cutting open the longitudinal sinus, there appeared a small but long abscess, about the size of a leech, which contained two drachms of matter; this had not burst, but had occasioned by its situation so much derangement of the functions of the brain, as to produce the above-mentioned symptoms: all the other parts of the brain appeared sound.

STRICTURE OF THE OESOPHAGUS.

Mrs. — has had for some years a difficulty in swallowing any large portion of solid food. She was during dinner one day seized with a difficulty in swallowing; upon taking in fluids, even it was found they would not pass. As this was conjectured to be in some degree owing to fear, I ordered her an opiate enema, and to keep opium frequently in the mouth, in hopes of lulling her to sleep; but in the morning, when she awoke, the loss of power of passing even fluids was as great as before. As she was very fearful that the probang might choke her, the use of it was deferred until the evening. In the evening I pushed it into the stomach, and she was immediately able to swallow. The piece of food, which was lamb, had remained in the part thirty hours.

TONGUE-TIED.

A child of Mr. — at five years old, was unable to articulate, in consequence of two defects: first, the tongue was tied; secondly, the upper lip. The frænum of each was so short, that the tip of the tongue could not be turned up or brought out of the mouth, nor the upper lip be raised. They were both of them cut, and the child did well.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

(Continued from p. 230, Vol. I.)

REPORT OF THE POOR-LAW COMMITTEE, 1846.

(Published by order of the Council.)

§ 17. HAVING now submitted a narrative, more or less circumstantial, of the medical arrangements in several unions, your committee by no means intend to convey the impression that these are the only, or even the most aggravated, instances, in which "considerations of character, personal qualifications," and past services,* have been set aside,—and persons from a distance (chiefly inexperienced young men) appointed to the care of extensive districts, or entire unions.

Many other cases of a similar nature might doubtless be found; three or four such were mentioned in the Parliamentary Evidence, but the particulars were not detailed, e. g. the Docking, Sleaford, Penshurst, and Leighton Buzzard Unions, to which last we shall hereafter direct more particular attention, as exhibiting some peculiar features.

In the unions already described, it will be seen that the demands of the established practitioners were fair and reasonable, and that in scarcely a single instance did they exceed the amount† of the previous medical expenses.

Yet have the commissioners, in their second annual report, the hardihood to assert, "We have never sought to disturb or displace the medical practitioners in their respective districts. Whenever this has been done, (and the introduction of individuals from a distance has occurred in but a very few instances,)‡ the guardians have been forced to adopt that course by the inadmissible demands which have been made upon them by the gentlemen who now complain of their practice having been interfered with."

It was shown to the parliamentary committee (14899) that the demands for the former salaries could not justly be deemed inadmissible; since it had been acknowledged by his late Majesty's Commission of Inquiry into the operation of the old poor-laws,§ that "Medical attendance seems in general to be adequately supplied, and economically, if we consider only the price and amount of attendance." An opinion emanating from such high and disinterested authority deserved the greatest consideration;—and certainly ought not to have been disregarded on the introduction of the new system, since the first arrangements for providing medical relief were confessed by the commissioners, on numerous occasions, to be mere experiments, adopted under very deficient information on the subject. (1812—1744.)

This view of the case was most candidly and judiciously admitted by Dr. Kay, (1873) when he stated that in the commencement of his operations, although he found "medical relief amongst other circumstances very ill regulated" in the old incorporations of parishes, still the previous arrangements "formed almost the only basis upon which he could ground an estimate of what proportion

the salary in a union ought to bear to the population;" and again "the medical salaries have been very much based upon what was done in the incorporations." (5081.) His argument, with regard to the salaries of an incorporation, would, of course, apply to the aggregate salaries of any number of parishes intended to form a union. Though the salary of an individual parish might not have been a safe guide, yet the previous average rate of remuneration in all the parishes of a union undoubtedly would.*

Besides, this principle has clearly been sanctioned by the Poor-Law Commissioners, both in practice and in their first report, where they lay down the rule, that "the aggregate of the former expenditure for medical relief in the separate parishes should be the maximum of the future cost of the union." We do not attempt to defend this as a permanent rule for calculating medical remuneration, because there is an absurdity on the face of it; we merely quote it now for the sake of proving that, on their own showing, the demands of the medical profession were not "inadmissible," because not exceeding the "maximum" fixed by the commissioners themselves.

If in rare instances (we have only heard of two, Newbury and Wheatonhurst,) the proposals of the established practitioners were not within this maximum, the reason is obvious, and the blame is solely attributable to the authors of the new system; for "tenders being required," men of moderate views and upright principles were precluded from offering their services for immense districts, or for entire unions, at the same rate they would readily have proposed for single parishes, the duties of which they could have undertaken consistently with a regard to their own capabilities and convenience, and (consequently) the welfare of the sick paupers.

We trust the accusation of "inadmissible demands" needs no further, or more complete, refutation.

§ 18. The advantage and security of the established practitioners were so involved in their making offers which might induce the guardians rather to appoint them than to admit medical men from a distance into the centre of their practices, that it would have been unaccountable indeed, had they proposed exorbitant or unreasonable salaries. These considerations were quite sufficient to account for the fact, which the commissioners have noticed in that portion of their report, quoted in the last section, and which was repeatedly urged by their friends before the parliamentary committee. It was said, (14896) that "the instances in which strangers have been introduced, bear a small proportion to the whole number of the unions;" and so, according to Mr. Gulson, (1706,) "the introduction of a stranger was quite the exception." The obvious reply is, that its being the exception, instead of the rule, originated not in any favourable disposition of the authorities to the established practitioners, (as events have sufficiently proved,) but in the fears and necessities of the latter.

* Second Annual Report, P. L. C.

† Lincoln is no exception, because, although the tenders were above that amount, yet the medical men ultimately decided in a body to accept a sum below it.

‡ 17 or 18 have been noticed, (14896) in 15 unions, including the Bridgewater.

§ Report, 1804, p. 43.

* We are at a loss to understand Dr. Kay's attempt (5129) to justify a practice in reference to the aggregate salaries of a number of parishes, which he repudiated in the case of the salaries of an incorporation. There existed the same "means of ascertaining the average rate of remuneration in one case as in the other." His object was apparently to defend his brother commissioners in their adoption of tenders.

The fact is, that in the vast majority of unions, some of the resident medical men sent in "tenders," or submitted to the terms dictated by the guardians, *not* because they considered appointment by tender defensible, nor because the offers of the guardians were less inadequate than in those unions where strangers were introduced, but because they were resolved at all hazards to keep out another rival, or occasionally (we regret to say) were desirous of occupying a position which would enable them to infringe on the private practice of their established competitors. The guardians were indeed seldom reduced to the necessity of introducing persons from a distance; the mere threat of such a proceeding frequently availed to ensure acquiescence on the part of the resident practitioners,—for example, in the Banbury, Chipping-Norton, Cookham, Eastry, and Reading Unions.*

Sir Francis Head, the assistant commissioner, openly boasted that the immense reduction he had made in the medical salaries was principally effected by the free use of such threats.† We can scarcely believe that the commissioners have persuaded themselves, although they endeavour to persuade others, that the apparent acquiescence of the medical men in so many unions, *thus obtained*, was a proof of their cordial approval of the arrangements of the guardians; or that the general silence of the profession demonstrates the existence of "but little dissatisfaction."‡

Such statements, however, as the following, must not be passed by without animadversion. "Many medical men who set their faces against these arrangements in the first instance, now cordially accede to them." (1746.) A reference to the unions before mentioned will prove that although, in some instances, the established practitioners, tired of the contest, and smarting under the injuries inflicted upon them, have yielded to the guardians, and accepted office on almost any conditions; yet in at least an equal number, such has been the change in the opinions and proceedings of the guardians, that the medical gentlemen have been enabled to hold the appointment with a due regard to their own consistency. The guardians have in these cases amended their system, not the medical men their views.

§ 19. The preceding narratives § will suffice to show that the boards of guardians, under the direction of the assistant commissioners, were the first to assume an offensive position.

The advertisements for "tenders," the dictation of terms below the previous inadequate remuneration, and the imposition of degrading and injurious conditions, such, for instance, as the establishment of a medical club,|| were direct attacks on both the legitimate interests and the character of the profession. One of these, at any rate, was necessarily sacrificed, and the miserable alternative forced upon every parish surgeon, either of degrading his professional character by furnishing tenders, and accepting discreditable terms, or of forfeiting his fairly-earned advantages, by surrendering the care of the poor to strangers. Under these circumstances, therefore, what ground can there be for surprise or censure, that the medical residents

collectively should have acted on the defensive, as indeed they did in many unions,* and occasionally doubtless with some bitterness?

They would indeed have benefited both the profession and the community at large, had they in every locality unanimously resisted the attempts of the Poor-law authorities to intimidate and coerce them into submission.

The outcry of the commissioners and guardians against what was erroneously termed the combination of the medical men, was in reality a very absurd one. Had not self-interest obscured their perception, they would have seen that the practitioners of any union, in coming to some agreement for their mutual protection, were acting on a principle strictly analogous to that on which the boards of guardians themselves were formed. These powerful bodies might with equal truth be styled "combinations," entered into by the more wealthy rate-payers (as representatives of the rest) against the paupers, and against those persons who supply them with the necessaries of life.

We do not wish to dispute either the propriety or the advantage of these combinations, but we assert, that the only difference in the cases was, that the guardians had an Act of Parliament to protect them, while the medical practitioners were prompted by nothing but a legitimate regard to their own interests, (1100) and a sense of what was due to their profession, the honour of which they had, on entering its ranks, sworn to defend.

Unless, therefore, it could have been shown that any local association of this nature had made unfair or exorbitant demands upon the community, we must deny the existence of any right to condemn it; and it is utterly at variance with any notion of equity, that the very parties who supposed that their own pecuniary advantage was concerned in crushing such an association, should assume the right of pronouncing on the justice of its demands. Yet, strange as it may appear, this has generally been done, and we have only to refer to a colloquy in the committee-room of the House of Commons, between two opponents of the medical profession, (in reference to the Lincoln Union,) to bear us out in our assertion:

"(1102) Mr. Slaney. Do you not think that the doctors were quite rightly served, when they entered into a combination to get more than a decent payment?"

"Mr. Gulson. I think so; and if any medical man who had been attending me and my family, had acted in the same manner, (had combined? with whom?) I would have turned him off, and got a fresh one."

Of the refinement and good taste displayed in this conversation, we say nothing, but we must be allowed to ask who constituted Mr. Slaney a judge of the propriety and decency of the demands of the supposed combination? Was he so entirely ignorant of the subject as to believe that the medical men required "more than a decent payment," when they proposed the addition of only *one-fifteenth*† to the sum which even an assistant commissioner considered "fair and moderate?" (1071) From Somerset House, perhaps, nothing better could have been expected, but from a member of

* Appendix, First Provincial Poor-Law Report.

† Ibid. Cranbrook Union.

‡ Poor-Law Commissioners' Report, 1840.

§ Provincial Journal, Nos. 12, 13, 14.

|| See Dr. Webster's evidence.

* The Assistant Commissioner, Mr. Earle, confessed that no advantage whatever was gained by the practice of requiring tenders, which "produced combination rather than competition." Second Annual Report, Appendix, p. 417.

† £320 instead of £300.

the legislature, one might have hoped for a more rational estimate of the value of medical services.

It is worthy of remark, that the same Mr. Slaney proposes to establish boards of health in large towns,* "appointed by boards of guardians." Let the profession narrowly watch his measures of legislation.

Dr. Kay, however, animadverted with more moderation on the feelings and conduct of medical men, under the treatment they experienced from the poor-law authorities, but his usual candour and penetration failed him when he stated (6117) that "before the true nature of the intentions of the poor-law commissioners was understood, there were sometimes unnecessary irritation and vexation; and that if the commissioners were satisfied of the grounds of their proceedings, it was incumbent upon them, in every instance, not to yield to that irritation and vexation."

He might have been appropriately answered, that the medical practitioners understood "the true nature of these intentions" quite as well as the commissioners and guardians themselves: and certainly the time which has since elapsed, has thrown no clearer light upon the "true nature" of their plans. So little, indeed, were the commissioners "satisfied of the ground of their proceedings," that they adopted in different places, and successively, (as may be seen in the preceding sections,) every variety of arrangement, not knowing which was the least objectionable. They were uniform in nothing except the "irritation and vexation" they excited throughout the profession. On what principle, then, but that of mere power, of "might against right," could they refuse to yield to that "irritation and vexation" so universally felt?

But Dr. Kay's defence of his colleagues rests only on a supposition; he says, "if they were satisfied," &c., it is plain, therefore, that we must look elsewhere for proofs of their satisfaction with their own proceedings. Mr. Gulson says, (1745) "the whole of this question since the introduction of the new law, has, in fact, been in the nature of an experiment;" and (1812) "the object of the commissioners, if I understand them rightly,† in allowing different systems of attendance, was ultimately to find out which works best, in order that they may avail themselves of that experience." And Dr. Kay himself, only a few answers before, observes, "The whole of the existing arrangements must be deemed provisional, subject to such modifications as the experience of the poor-law commissioners and boards of guardians suggest;" (5061) and again, "I am not prepared to justify the present arrangements, except as provisional, and I expect changes to be made." (5066.)

After such confessions, the profession can no longer be accused of unreasonable opposition, or of slow comprehension.

The proper course for the boards of guardians to have pursued at first, would have been to invite the medical men practising within their respective unions, (such at least as were properly qualified) to meet and assist them in the medical arrangements, offering them the aggregate of the former parochial expenses, and acting on their suggestions

in appointing the medical officers, distributing the parishes, and apportioning the remuneration. The attempt to effect all this, on Mr. Gulson's plan (1699), without the cordial co-operation of at least the majority of the professional corps, could only terminate, as it has done, unsuccessfully. Had an opposite course been pursued, the contest might have been avoided; the heart-burnings, the severance of ancient connexions, and the social animosities, which have resulted from the desperate measures adopted by the poor-law authorities, would not have been heard of. Time would have been afforded for preparing the data on which to found an improved system of medical relief, and the guardians would not have been obliged, as now, to retrace their steps, and practically to acknowledge their error.* That the course here indicated would have been pursued in many unions, is clear, had not the poor-law commissioners prevented it, instead of enforcing it in all, as they obviously should have done.

§ 20. Medical practitioners in general, and of all grades, were too conversant with the great evils attending the system (or rather the want of system) of medical relief under the old poor-law, not to have gladly assisted the guardians in their removal.

These evils were fully described in the first poor-law report of this association, and were freely admitted by all the medical witnesses.

They may be thus briefly recapitulated:

The absence of medical superintendence, and, indeed, of responsibility to any proper authority; the frequent adoption of tender in the appointment of parish surgeons, (14611), the degrading nature of the competition thus called into action among medical practitioners; (15389—15434 et seq.); the want of adequate inducement to perform properly the important duties of the office; lax and insufficient attendance on the poor (14799); the operation of the settlement laws producing and encouraging charges for attendance on non-parishioners, which charges, if not absolutely high, (of which there is no proof,) were so, relatively to the pitiful salaries awarded by overseers and select vestries;† the occasional employment of ignorant and unqualified practi-

* Mr. Power, who had acquired some valuable experience from the failure of his medical relief schemes in the south, adopted a wiser course in the north. "It has been determined," he said, (4293) "to continue the former state of things indefinitely for the present."

† Mr. Gulson produced an instance (1725) of a charge on a suspended order, to the amount of £17, the salary being £40, in a parish containing 800 paupers. The fair inference would be, that the charge of £17 was proportioned to the amount of attendance, and of course the salary most unjustly disproportioned. Dr. Yelloly, an impartial observer, stated (p. 25,) that the result of his inquiries, which were extensive, did not "at all favour the supposition that the charge for suspended orders was usually, either excessive, or made at the highest rate of professional usage. . . . I have every reason to believe that in suspended orders, the more expensive form of medicine was not given, and that the charges were those usually made to the middle class of society."

In estimating the amount of former medical expenses, it is obvious that the charges for suspended orders ought invariably to have been included.

They were admitted by both parties to afford the surgeon some compensation for the low parochial salaries, and were, therefore, an important item in the account.

Mr. Gulson asserted that he always included them in the calculation, (1842-8) but Dr. Kay omitted them in his estimate of the relative proportion of the old and new salaries in the Norfolk incorporations (5173). His comparison is, therefore, incorrect. Neither did Mr. Power consider the suspended orders, in referring to his (supposed) augmentation of the former salaries (4234), but he candidly confessed before the committee, that they ought so have been taken into the calculation.

* Report of Committee on the Sanitary Condition of Large Towns.

† If he were doubtful whether he understood their intentions, how could others be expected to comprehend them?

tioners; the absence of any sufficient check on the appointment of distant surgeons, who from motives of speculation might offer their services; and the indefinite nature of the liabilities of the medical officer, producing a tendency on the part both of the rate-payers and of the poor, to extend these liabilities⁽¹⁴⁸¹⁾ at his expense, and to the injury of all parties concerned.*

The profession had, therefore, in most unions, hailed the enactment of an amended poor-law as an opportunity for a reform of these abuses in the medical department; but *their* propositions were universally received with that distrust and suspicion which characterize minds bent on sordid objects; and were generally rejected with the self-sufficiency and arrogance which especially marked the newly-created and ill-informed authorities.

Totally forgetful of the claims of a learned profession, and of the extent of its unrequited exertions and gratuitous services; ignorant also of the nature of its duties, as well as of the necessities of the sick, the poor-law commissioners attacked the medical body as though it were deriving an enormous and unjust profit from attendance on paupers. And to reconcile the guardians and the community to this violation of equity and propriety, they endeavoured to vilify the general character and asperse the motives of the profession, not only in their official intercourse with the local boards,† but publicly in their first Annual Report.

The unjustifiable statements contained in this document were refuted in the report of the late poor-law committee of this Association; they were also suitably replied to by the practitioners of Worcestershire, Dorsetshire, and Bucks;‡ and they are now noticed only for the purpose of recalling to the recollection of the association the various circumstances attendant on the introduction of the new arrangement.

§ 21. Your committee now proceed to consider the reasons for and against the appointment by tender, which were elicited by the parliamentary committee.

Mr. Gulson, in his evidence, as well as the commissioners in their reports and other documents, endeavoured to show that the guardians, at the commencement of their operations, had no alternative but to require tenders. They said, "It is only by resorting to open tender, that, situated as the guardians are, in the formation of new unions, they can ascertain, with anything like correctness, the sum which it may be right to pay for the medical relief of a district,"⁽¹⁴⁸⁷³⁾ §

Mr. Gulson stated, (1732,) "Tender has been unavoidable, and is a good plan in the first instance to ascertain what we can fairly get it done for;" and, (1700,) "In highly pauperized districts, I decidedly recommended tender, because we found it difficult to fix a sum;" and again, (1827,) "We could not avoid it in the first instance," qualifying his assertion, however, by excepting⁽¹⁸²⁸⁾ "those unions in which the sum that had hitherto been given, appeared to be moderate." Mr. G.

thus admitted that it was unnecessary to resort to tenders in every instance,* consequently the commissioners stand corrected by the statements of their own assistants. In fact, by referring to the evidence already detailed, we find that they frequently dispensed with tenders altogether, even in districts where the expense of medical attendance was the greatest. Thus, in Kent, where pauperism prevailed, Sir F. Head almost invariably fixed the amount of salary, (though very arbitrarily and unjustly,) whilst, in Essex, Mr. Power attempted to "determine" the rate of remuneration in his medical clubs.

The commissioners could thus, when so disposed, exercise their own judgment, "and fix a sum," for certain unions, and why not, therefore, it may be asked, for all?

Because, according to Mr. Gulson, who was probably ignorant of the proceedings of Sir F. Head and others, "some were highly pauperized," and the medical salaries consequently "high." We presume that he meant "high" as to actual amount, not "high" with relation to the duty performed and expense incurred by the parish surgeons, for it is notorious that where pauperism has abounded, there the rate of medical remuneration has invariably been the lowest.

This, therefore, appears to have been his mode of reasoning: where the paupers are few, a calculation may be made, because they are not worth putting up to auction; but where they are numerous, a fair calculation would raise the salaries, which it is my aim to depress; competition must, therefore, be encouraged; highly pauperized districts are probably the result of the "high" medical salaries; the number of paupers must therefore be reduced by diminishing the remuneration of their attendants! Sickness and destitution will decrease where relief is withheld.

Such principles we leave Mr. Gulson to disclaim; by so doing, however, he would condemn his practice. The commissioners are elsewhere more cautious, for in their second report we meet with another argument for the tender system, viz.—"The elements on which the calculation must be founded, are in themselves utterly unknown to the persons who are selected for the office of guardians; the medical practitioners themselves cannot fail to be possessed individually of the knowledge necessary for making the calculation, and in asking them to bring it forward in the way of tender, nothing more was meant than that they themselves should in the first instance suggest the amount of the reward, which, in their own view, their services might entitle them to,—thus, in truth, constituting the medical practitioners, and not the boards of guardians, the judges of the fitting amount of remuneration for their attendance." In like manner, the chairman of the committee⁽¹⁷³³⁾ suggested, that "the guardians ascertain by tender, what, in the opinion of the medical men, being themselves competent judges upon this subject, their remuneration should be." There are two assumptions in this specious but shallow apology for tender; first, that the medical men who furnished them possessed the *materials*, as well as the "knowledge necessary for making the calculation;" secondly, that the only method

* These evils were 'quite sufficient without the addition of Mr. Gulson's absurd stories about the administration of Morrison's Pills, "black beer and gin," and other nostrums, in the absence of medical contracts, (1053, 1748.)

† See instances in First Prov. Poor-Law Report, Appendix.

‡ We solicit a re-perusal of these replies. See Appendix, Part II. First Prov. P. L. Rep.

§ Second Annual Report.

* "In the counties of Nottingham and Lincoln . . . it has been left open to the boards of guardians to do what they thought best," (1700.)

of inducing the medical practitioners to furnish such a calculation was to require tenders. The fallacy of these assumptions was shown to the parliamentary committee. The great majority of practitioners were at that time without sufficient information as to the elements of the calculation. The subject had *then* been investigated by but few. The average cost per case of a proper supply of drugs had not been correctly estimated. The writings of Dr. Calvert, Mr. Smith of Southam, and our late lamented colleague, Mr. Yeatman,* had given very inadequate notions of the prime cost of medical attendance and medicines for the poor, and even these imperfect calculations were unknown to the bulk of the profession. So defective and objectionable was the old system, that it disposed even medical men to undervalue parochial services, and therefore to underrate the expense of proper medical relief.

The former surgeons of parishes knew, indeed, that they had never been remunerated; "their contracts had never been founded on previous fair calculation, of the number likely to be relieved, and the real cost of careful attendance;"† consequently they could never have reckoned on a direct compensation for their time, outlay, and personal exertions. The introduction of the new arrangements threw additional obstructions in the way of any attempts at such calculations.

They knew not for what proportion of the population the guardians might choose to provide medical relief; they could only refer to their old stipends, and take into consideration the increased trouble, which, under the new system, they would incur from onerous returns and inconvenient districts. (14877)

But, in truth, whatever the ignorance of the guardians, or of individual practitioners, on the subject, the commissioners had access to some very important sources of information, (partly communications † made to § themselves, and partly valuable papers in the Appendix to the Report of the previous Commission of Enquiry). Had they honestly adopted the valuable and disinterested suggestions contained in these documents, and availed themselves of the assistance of the medical gentlemen in the several unions, they might have framed plans far less objectionable, without any recourse to tenders.

Nevertheless, the commissioners felt that it was impossible to avoid some sort of appeal to medical practitioners, who of course possessed a portion of the information required. How then was this information elicited? And how were those possessing it constituted judges of the fitting amount of remuneration? Were they addressed as parties without whose cordial co-operation no system, whether provisional or permanent, could be properly administered? Were they supplied with such data for the calculation, as the commissioners and guardians alone possessed?§ Were respect-

able and long resident practitioners consulted? No; instead of such a wise and magnanimous course, the commissioners chose to appeal to every individual in the profession, whether resident or non-resident, employed or unemployed, established or seeking a home and a morsel of bread; all were invited to transmit their estimates, and the prospect of office was held out to that person whose calculation of the fitting amount should most nearly coincide with the views, and appear best calculated to promote the designs of the commissioners. Let any unprejudiced party pronounce whether a project more calculated to destroy every notion of adequate remuneration, in the minds both of those requiring and of those furnishing tenders, could have been devised.

The poor-law commissioners were fully aware that the sums specified in these tenders were not likely to bear any relation to the value of the article supplied.

How much less discreditable, then, would it have been, to have avowed openly, that the sole object in requiring tenders was to reduce the union expenditure, and not to have descended to evasions so palpable as to strike even the most simple! They knew that the hope of obtaining more profitable practice,* by introduction into "wide fields" for exertion, was the motive which prompted the estimate of some; that the desire of retaining their old sphere of practice guided the estimate of others, and not at all a calculation of "the amount of reward which in their view their services might entitle them to;" to prove which, we might refer to the expressed and published opinions of the poor-law commissioners themselves; but we prefer the evidence of the medical witnesses; for instance, (14872), "Tenders have always been given in with a view to private practice, and therefore have not operated fairly and equitably in reference to the parochial duties." (14873) "In giving the tenders, the medical men were *not* guided by the estimate of the value of their services; so far from that, they only sought to obtain or retain certain other collateral advantages; and it is this peculiarity belonging to the medical appointments of the unions, which has enabled the commissioners and the boards of guardians to exercise such an extraordinary control over the medical men of the country."

§ 22. The commissioners have, however, in other ways, attempted to defend the operation of tender. "The guardians have in very many instances been induced to set the lowest tender aside, solely with reference to considerations of character, and personal qualifications.† I have seen numberless instances where the lowest tender has not been accepted." (1703)

Granting that these statements were founded on fact, (although Mr. Gulson brought forward no cases to confirm them,) the medical witnesses produced instances in which the lowest tender was accepted, in opposition to qualifications of character and proximity. Some of these are detailed in the preceding sections of this report, particularly in those relating to the Aylesbury, the Hambleton, the Ongar, and the Wheathurst unions.

presented to the notice of the board a statement of their past services and remuneration, and it has been admitted by the assistant commissioner that an adequate compensation was not allowed."

* First Annual Report, p. 53.

† Second Annual Report, p. 23.

* Mr. Gulson said he had read Mr. Yeatman's pamphlet (1834.) So little, however, did he understand it, that he described it as a scale for payment according to the gross population, whereas it is, in reality, according to the number of paupers.

† Rev. D. Capper's "Workhouse System."

‡ See communications from Dr. Calvert, Rev. Peyton Blackson, Edward Osler, Esq., and the Rev. D. Capper.

§ The memorial of the Tonbridge practitioners, who had been compelled by the assistant commissioners to accept £250 instead of £470, (the amount of their former salaries,) contains the following remark:—"They (the medical men) have asked for and been denied information as to the grounds upon which the board have decided on the amount of their salaries. They have

In the Wallingford union also, (mentioned in the evidence,¹⁴⁷⁶²) a district and a single parish were, by the direction of the assistant commissioner Mr. Stevens, entrusted to two medical men living at a distance, who had sent in the lowest tenders, instead of the resident and tried practitioners, whom the guardians wished to re-appoint. Yet, in the face of such facts, the commissioners ventured to assert that the boards were not required to accept the lowest tender.*

Again, in the Kastry union, (second year,) a salary of 50*l.* was proposed for one district by two medical men, (each keeping an assistant,) who had previously attended the parishes; but a young practitioner without an assistant sent in a tender for 24*l.*, and consequently received the appointment.† So in the Crickhowell union, a young man, who had resided in Wales only four years, and who understood not a word of the language, yet, having sent in the lowest tender, was appointed to the care of one half of the union, "where you may go for miles before you would meet with a person who could interpret between the medical man and his patient."‡ And in the majority of instances, there can be little doubt that the guardians *did* accept the lowest tender, whether bound to do so or not by the terms of their advertisement. In either case the obvious effect of the tender was to reduce the remuneration below a reasonable rate, and its object as plainly was not to ascertain the cost, but to save expense. By reserving to themselves the liberty of not accepting the lowest tender, the commissioners avoided the public reproach which might accrue to them from a contrary course, and at the same time increased their amount of power and patronage.

Nor were tenders at all necessary to ascertain the number of those willing to accept office under the boards of guardians, it being obvious that had the duty been made honourable, a proper remuneration been offered, and the districts judiciously arranged, there would have been no lack of efficient and respectable candidates.

The commissioners, in their second annual Report, allege that it was never supposed such a course (*vis.* requiring tenders) was derogatory to the character of the profession.

So mistaken and degrading an estimate of the character of the profession demonstrates how utterly unfit were the commissioners to legislate on a question having such strictly professional bearings. They must have been well aware that such a practice would not have been tolerated by either of the other learned professions, nor in appointments to any other public offices.§

* Vide Letter to Lord John Russell. Appendix to Second Annual Report, p. 518.

† Appendix, First Prov. P. L. Report, p. 60.

‡ Ibid. p. 51.

§ "To propose that pecuniary competition should be allowed to operate in appointing the officers of our fleets and armies, in providing for the sacred duties of religion, or in filling up the departments of the state or diplomacy, would be just as objectionable as is the plan now so frequently adopted, relative to the attendance on the sick poor."—Dr. Yelkly, p. 11.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, JULY 3, 1841.

WHILE we are at all times desirous of promoting the settlement of general medical questions, with a view to the benefit of the community as well as to the welfare of the medical profession, we are constrained to admit that the manner in which medical practitioners are commonly treated by the public, and the very inadequate remuneration which they often receive for long and arduous services, afford but little inducement to persevere in the endeavour on the former of these grounds. Of the numerous practitioners to be found in a populous neighbourhood, the greater portion are, for the most part, miserably rewarded for the services which they are continually rendering to all around them. No class of men devote more of their time, their talents, and their energies, to the public service. They are, as a body, ever ready to answer the calls made upon them, and, as individuals, their advice and assistance are freely granted, often without the slightest view to emolument, professional advancement, or any other object than pure and disinterested benevolence towards those who solicit their aid: more than this, the very liberality and readiness with which the call of the sufferer from ill health is at all times responded to by medical men, are even made the ground of refusing the remuneration which is their due, and of requiring—absolutely [requiring as a right—their gratuitous assistance in every emergency in which their aid may be needed.

Deeply should we regret were this feeling of benevolence on the part of the medical practitioner ever to be weakened, or its active daily use restrained; but while we fully recognise its value, and glory in its exercise, while we would say with Boerhaave, that the poor are our best patients for God is their paymaster, we feel bound to protest against the principle now adopted, both in public and private—that the time and services of the medical practitioner are of right at the gratuitous disposal of whosoever may choose to call upon them. We cannot recognize the dogma that any man or set of men are entitled to exercise feelings of benevolence, or establish a reputation for charity, at the sole cost of another; and if the ministers of religion and the interpreters of the laws severally receive a return for the services rendered by them, and are none of them expected to follow out their

respective vocations without some acknowledgment in compensation for their time and labour; so also the practitioner of medicine is worthy of his hire, and ought to receive that remuneration to which he is justly entitled. A man meets with an accident, or a woman is suddenly taken ill in the open streets; a medical practitioner, who happens to be passing by at the time, is recognized and stopped, and immediately called upon to administer to the case. In nine instances out of ten, or, probably, in ninety-nine out of a hundred, he, at every inconvenience, cheerfully and at once affords the relief required, or has already volunteered his services unasked; and in pursuing this line of conduct he acts in accordance with the dictates of humanity; and were he to hesitate in doing so without sufficient cause, would be guilty of moral wrong. If, however, he refuse to respond to the call made upon him, and intimate that his engagements require him elsewhere; or that his time is precious, and he is unable at the precise moment to give it away, an immediate outcry is raised against him, and the very same persons who will see a fellow-creature waste away from sheer inanition, without once dreaming of making a call upon the neighbouring baker to give a loaf to the famishing family, or of bestowing the amount necessary to purchase the required food out of their own pockets, albeit well able to afford the same, will be loud in their vituperation of the inhumanity of the medical man who shall presume to think of procuring the means necessary for the support of his own family, in preference to placing his time at the disposal of these men of benevolent words. Some limit should surely be placed to this vicarious charity, which the public are so willing to exercise at the expense of the medical profession.

If the medical practitioner deems it fitting or advantageous, or from any motive whatsoever, whether of pure benevolence or of personal interest, is willing to devote his time to the services of some public institution, he has a right so to do; if he chooses to exercise his benevolence in affording gratuitous advice to those who are unable to pay for that assistance which they need, he is acting in accordance with those high principles of moral excellence which have ever characterized, and, we trust, will ever continue to characterize, the medical profession in this country. But no man has, or can have, a right to say to such a man, "Here is a fitting object for the exercise of your talents, and unless you bestow your benevolence upon him as upon others, you shall be held up to public reprobation." Has not the medical practitioner rather the right to make answer, "No! this is the especial object of your kindly feelings,

and if I gratify your benevolence in attending to his wants, I have as much right to expect remuneration from you for the employment of my time and talents, as the baker or the clothier, for the food or the clothing with which they may supply the destitute at your request."

The time of a medical man is his estate; his professional talents and acquirements are his stock in trade. Individually they are at his own disposal, and he may freely give them away, if it so pleases him; but if the public, or a private individual, require their use, surely the practitioner has a right to expect some return, and to look for a commensurate remuneration; much more, that upon his refusal to place them at the gratuitous disposal of those who so demand them, he shall not be visited with contumely and reproach, or threatened with pains and penalties. We have heard that a high judicial authority upon one occasion proceeded so far as to threaten a medical man with legal consequences, for refusing his gratuitous assistance upon some sudden emergency, and professed to be only restrained from visiting him with fine or imprisonment, or both, because the practitioner in question happened not to be entitled by law to enforce payment for any services which he might render. Truly, the situation of the medical profession is one of exceeding and curious difficulty, and a hard measure of injustice is dealt out to its members on every occasion in which they come in contact with public authorities, from the eminent judge on the bench, down to the triumvirate of Somerset House, and their subordinates, the Messrs. Bumble and Grummer, who may chance to preside over the judicial mysteries of the poor-house or the parish.

We have been led into these reflections by receiving a circular from Dr. William Conolly of Cheltenham, containing a condensed statement of the proceedings of the central committee for the management of the Benevolent Fund of the Provincial Medical and Surgical Association. From the annual report of the committee presented before the Southampton meeting, and subsequently published in the ninth volume of the Transactions, it appears that since the institution of the fund, relief has been administered to various amount in fifteen instances, and that in each of these instances the aid afforded has been of essential service. We regret to add, that it is also stated that the committee have been compelled to refuse relief to many urgent cases within the last twelve months. It is lamentable to think that, from want of due support, such an excellent institution should be crippled, and still more lamentable, that so much distress should exist among the members of a liberal profession. The amount of good,

says the report, that might be effected, if each member of the association would only contribute the small sum of *five shillings* annually, is incalculable. Notice of a motion by Dr. Cowan, for the purpose of raising such a subscription, stands for consideration at the next anniversary at York; and were the terms of the motion such as to render the subscription a voluntary act, instead of a forced contribution, we should not doubt of its success in the attainment of the object in view. The association would in this way possess the means of extending the benefits of the fund, and of meeting more efficiently the demands made upon it. But is there no mode of improving the general condition of medical men, so as to limit the distress complained of, and to prevent, in a measure at least, the necessity for these applications for relief? Some of these cases, we observe, are such as no human foresight could have provided for, but others have arisen, we fear, from the very causes to which we have alluded, the want of sufficient remuneration to the medical man, and the disposition of the public and of private individuals to take advantage of his situation, and to employ his time and services on all occasions, without making even the pretence of a return. Surely when so much is done *for* the public, some little may be not unfitly expected *from* the public, in those cases of failure and distress which must inevitably arise. Where the demands upon the time are so unceremoniously, so imperatively, so repeatedly made, it is not too much to expect, that when the health fails, and the heart sickens under the long-protracted struggle and hope long deferred, the acknowledgment and return of benefits should be equally free. The association fund, it should be borne in mind, is not on the principle of a mutual assurance or benefit society. It is strictly a benevolent fund, not confining its benefits to the subscribers, nor limiting its operations to members of the association, but bestowing relief to the extent of its means, wheresoever such relief is required. It were far better that the profession should be adequately remunerated, and thereby enabled to contend with the fluctuations of condition to which all are liable, in such a state of society as now exists, or at least to provide from their own body for the cases of unforeseen and unavoidable reverse of fortune affecting any of their members, which must sometimes occur. But failing this, an unhappy combination of circumstances, mainly owing to the system of forced contributions systematically levied on them by the public, it is not too much to expect that some public fund shall be formed, some provision made at the public expense, for the purpose of relieving the distress of aged, infirm,

and worn-out practitioners and their destitute families. The necessary sum might be raised by a per centage deducted from the collegiate examination and graduation fees, or in various other ways which might be pointed out; but under present circumstances it ought not to be expected at all, and certainly not otherwise than by voluntary subscription, or donation from the medical profession itself. Any imposition upon the members of the profession, either for this or other purposes in their present depressed state, could not be afforded, and ought not to be thought of. What can be done by them as individuals should be voluntary, and will, we doubt not, be to the extent of their ability; but we deprecate any forced contribution, either in the shape of an annual capitation tax, or an addition to graduation fees, already too high. The efforts of the profession should be left to the free will and liberality of its members. Any general public provision which may be requisite, is due from, and should be made either by corporate bodies already existing, or at the expense of the community at large, and may in the latter case be received as some slight acknowledgment of the important and lasting benefits received.

POOR LAW REPORT.

After an unavoidable delay, we are enabled to resume, in our present number, the valuable report of the Provincial Medical and Surgical Association, on Poor-law medical relief. The chief cause of the interruption which has occurred in the publication of the report arose from the unremitting exertions of the Poor-law Committee respecting parliamentary measures during the past session.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 22, 1841.

The PRESIDENT in the Chair.

ON CONGENITAL TUMORS OF THE PELVIS,
BY EDWARD STANLEY, F.R.S., SURGEON TO
ST. BARTHOLOMEW'S HOSPITAL.

THE object of the paper is to point out the various forms of congenital tumor of the pelvis, the discrimination of which becomes important with reference to the question of their removal by operation.

Four cases are related, which, it is believed, embrace the chief varieties in the character of these abnormal productions, and which are arranged under the following heads:—

First, the cases wherein the tumor is composed wholly of morbid structure, such as solid fibrous tumors and membranous cysts.

Secondly, the cases wherein the tumor is com-

posed of morbid structures in conjunction with isolated portions of perfectly-formed animal organs, having no other relation to the living being with which they are connected, than as they are dependent upon it for the means of nutrition and growth; these cases, it is added, must be considered to belong to the class of parasitic monsters.

Thirdly, the cases wherein the tumor being of the nature of spina bifida, consists of a membranous cyst, communicating with the theca vertebralis.

Fourthly, the cases wherein the tumor consists wholly or in part of membranous cysts communicating with the spinal canal, but externally to the theca, between this and the surrounding bony walls of the canal.

In all these cases here described, and in others to which reference is made, the tumor was attached to the external and posterior part of the walls of the pelvis, and consequently its situation was such as to allow of its removal by operation, provided there was no objection either from the depth of its attachments, or from the continuity of any part of it with the membranes of the spinal marrow, or other of the external organs of the body of the child to which it was united.

In one of the cases here related, the congenital tumor of large size was removed with complete success, by the late Mr. Thomas Blizard. The tumor, which is preserved in the Museum of the Royal College of Surgeons, consists of distinct solid fibrous substances, and of an isolated portion of intestine three and a half inches in length, closed at each end, and having at one end a narrow process continued from it, of the exact form of an appendix vermiformis. In the process of the removal of the tumor, this intestine was opened, and there flowed from its interior a fluid closely resembling meconium in its colour and consistence. The author of the paper states, that an analogous fact of the production of a fluid exactly like meconium in its appearance, without the existence of a liver, or other distinct hepatic apparatus, occurred to his observation in the dissection of an acephalous lamb, in which, with other malformations, the liver was wanting, and the intestines were filled by a thick fluid, dark-coloured, but which, when diluted, presented the yellow colour of bile, but it had not a bitter flavour.

READ ALSO, PATHOLOGICAL AND SURGICAL OBSERVATIONS ON THE DISEASES OF THE EAR, BY JOSEPH TOYNBEE, ESQ., PRESENTED BY DR. R. BRIGHT.

THE present paper is the first of a series which the author hopes to lay before the Society on the same subject, and contains the details of forty-one dissections of the internal ear in patients who have died in hospitals and infirmaries of various diseases, and of whose faculty of hearing, as to the greater number at least, the author was uninformed. The following is a concise view of the state of the cavity of the tympanum in these cases:—

1. In a healthy state 10
2. With simple thickening of the investing membrane 6
3. With bands of adhesion passing from various parts of the cavity of the tympanum

most frequently connecting the stapes to its circumference 4

4. With slight thickening of the investing membrane, accompanied by the existence of adhesive bands 13
5. With considerable thickening of the investing membrane, and bands of adhesion 5
6. With suppurative of the cavity of the tympanum 1
7. With ankylosis of the base of the stapes to the circumference of the fenestra ovalis 2

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"The large proportion of specimens which are undoubtedly in a diseased state," says the author, "is very surprising, but it may be less so, when I state that many persons whom I have examined, and who have considered that they hear perfectly well, cannot distinguish the ticking of my watch at the distance of two and a half feet, and in some cases at four or five inches only, though the same watch can be heard by a healthy ear seven or eight feet from the head. I am therefore disposed to believe that the function of the ear is impaired much more frequently than is generally supposed."

The author concludes his paper, by inviting the members of the profession to inspect the preparations described in his paper. In consequence of there being still many papers unread, there will be an extra meeting of the Society on Tuesday next, the 6th inst.

ACADEMY OF SCIENCES.

Paris, June 14.

POISONING WITH ARSENIC.

THE various questions relative to poisoning with arsenic and Marsh's apparatus, which originated at the trial of Madame Laffarge, were submitted to a committee of the Academy of Sciences; the following is the report of the committee.

1. Marsh's apparatus is capable of easily detecting the smallest part of arsenious acid in a fluid; the spots begin to appear when the fluid contains only *solides*.

2. The spots are not more readily produced with a large quantity of fluid than with a small one, if each contain a relative proportion of arsenic; but in the former case, they are deposited during a longer time. Hence it is advantageous to operate on a small quantity of fluid, as the spots will be much more intense.

3. It is a matter of the utmost importance to make the gas pass through a tube at least eleven inches long, containing cotton, for the purpose of arresting the matter which is always carried along mechanically by the gas: unless this be done, we run a risk of obtaining spots of the oxysulphuret of zinc, which often resemble those of arsenic.

4. The process proposed by M. Lassaigne may be useful. It consists in passing the arsenuretted hydrogen through a neutral solution of the nitrate of silver, and then decomposing by hydrochloric acid; the acids are eliminated by evaporation, and the residuum tested for arsenic. This method is particularly convenient for operating on small

quantities of fluid; we must, however, be on our guard against concluding the presence of arsenic, simply because the solution of nitrate of silver becomes troubled, or throws down a precipitate during the passage of the gas through it; for this may occur from other gases than the arsenious, or even from hydrogen itself, under the influence of light. The solution of nitrate of silver may be replaced by a solution of chlorine, or an alkaline chloride.

5. The method pointed out by Berzelius and Liebig, and usefully modified by Köppelin and Kampmann, is capable of discovering very minute quantities of arsenic that could not be shown in spots; it condenses the arsenic more completely than any other process; however, the arsenic is often mixed with sulphuret of arsenic, which may alter its colour, especially when in very small quantity. It is this method which the committee prefer to all others; the apparatus, they think, should be arranged in the following manner.

The flask must have a straight neck with a large mouth; the cork is pierced by two holes: through one a straight tube, (of 4.433 lines in diameter) is passed to the bottom of the flask; through the other a smaller tube, bent at right angles. The latter passes into another tube, eleven inches long, filled with asbestos; this latter joins a tube of very small diameter, (one line,) and pointed at the end; the extremity of this tube, for about three inches, is enveloped in a metallic leaf. The flask must be chosen of sufficient size to contain one-fifth more than the quantity of fluid operated on; and when the latter is supposed to contain only traces of arsenic, that quantity should be small. The extremity of the tube in the flask is cut off obliquely, and furnished with a small bulb at any point of the vertical branch, for the purpose of condensing any water which may be carried up. The apparatus being thus arranged, a few bits of zinc are introduced into the flask, and then some water, sufficient to cover the end of the safety tube; then some sulphuric acid is poured in; the air contained in the flask is expelled by the hydrogen. The end of the horizontal tube is now heated red with charcoal, and the suspected fluid introduced into the flask with a funnel, care being taken that no air enters with it. Should the gas be disengaged more slowly after the introduction of the fluid, some more sulphuric acid must be added, and the process must be carried on in as regular a manner as possible. If the gas contain any arsenic, the latter will be deposited in the form of a ring, around the extremity of the heated tube; and the gas which escapes may be ignited, so as to collect any spots on a porcelain cup; for a portion of the metal may be carried over, unless the tube be heated for a sufficient length. The tube might be bent, and the end passed into a solution of the nitrate of silver, so as to collect every particle of arsenic.

As the metal is deposited in the form of a ring round the tube, we can easily examine all its physical and chemical properties.

1. Its volatility. 2. Its conversion by heat into arsenious acid. 3. By heating a little nitric acid in the tube, the arsenic is converted into arsenious acid, soluble in water. On carefully evaporating the water in a small porcelain cup, we obtain a brick-red precipitate with a neutral solution of nitrate of silver. 4. Having applied all these tests, we may again obtain metallic arsenic. A small quantity of black

flux is placed in the capsule containing the brick-red residuum; the contents are dried and introduced into a small tube, one end of which is pointed, the other closed. On heating the tube red, the arsenic is converted into a metallic state, and forms a ring round the narrow end of the tube.

6. The zinc and sulphuric acid obtained in shop, may be frequently employed without furnishing traces of arsenic in Marsh's apparatus. The sulphuric acid employed by the committee was purified by distillation, and the zinc by being reduced to fine scales. In all cases, the analyst should test the purity of the substances which he is about to employ, and after he has tested the fluids or matter supposed to contain poison, he should repeat the same operations, on the same quantities, with his tests, on fluids known not to contain any poison. Thus, if he has carbonised animal matter by sulphuric or nitric acid, he should evaporate in the same kind of vessels similar quantities of these acids, &c.

7. The process of carbonising animal matter by nitric acid or the nitrate of potass may succeed completely; but sometimes there unavoidably occurs, towards the end of the experiment, a deflagration by which a large part of the arsenic is lost. Carbonising by sulphuric acid, and then treating the carbon obtained with nitric acid, seems to the committee much preferable in a great many cases; this method requires the use of a smaller quantity of the reagent, and does not give rise to so great a waste of arsenic as the others.

8. It is a matter of the utmost importance that the whole of the animal matter should be completely carbonised; unless this be done, we obtain a fluid which froths, and gives spots somewhat similar to those of arsenic; these were first noticed by M. Orfila, under the name of dirt-spots, and are sometimes produced in great quantity, but they can be readily distinguished by proper tests from the true arsenical spots.

9. As to the arsenic which has been said to exist naturally in the human body, all the experiments made by the committee on the bones and soft parts, gave negative results.

10. The committee are of opinion, that when Marsh's apparatus is employed in a proper manner, it is suited to all cases in which the quantity of arsenic is much greater than what the sensibility of the apparatus is capable of exhibiting; it should only be employed with the object of concentrating the metal, and we should reject, or at least regard as very doubtful, any indications furnished by it, when the crust round the end of the tube is too thin to allow the experimenter to apply the chemical tests of arsenic.

In the majority of cases of poisoning with arsenic, the medical jurist will be able to obtain the metal from the matter which has been vomited, or from what remains in the intestines, and will not find it necessary to carbonise the flesh, unless the former means fail, or in very rare cases.

ROYAL BERKSHIRE HOSPITAL.

(Practice of Mr. F. A. BULLEY.)

CHRONIC PERIOSTITIS OF THE PARIETAL BONE,
WITH EXTENSIVE ULCERATION OF THE
SCALP.

DANIEL HEARD, æt. 65, was admitted an out-patient, March 13. The left side of the head presented the following appearances of disease. Situated over the parietal bone were two or three reddened glossy-looking swellings, each of about the size of the half-section of a large walnut, extremely painful at all times, especially when touched. The upper parts of these swellings were deeply ulcerated and filled with coherent sloughs of a dirty white colour, exuding an unhealthy ichorous discharge. In parts where the sloughs had separated, there was an appearance of weakly-organized granulations. He stated that his complaints commenced about seven years ago. Examination by the probe gave no signs of carious or necrosed bone underneath. There were appearances of a similar disease having existed on the opposite parietal bone.

The root and left ala of the nose and side of the face were deeply indented with depressions resembling small-pox, the remains of what might from his description be considered as rupia. This he had about six years ago. He feels no unusual diminution of muscular strength. He is and always has been a very temperate man. He had been subject to slight attacks of hereditary gout, and had been abroad with a regiment in the East Indies for fifteen years. He had never had any syphilitic disease, and had once only a very trifling gonorrhœa. The present form of his complaint has existed about two years and a half. He told me that for the last six years he had been very badly off, and that during the two last of this period he had been taking mercury almost unremittingly, and that he had frequently taken it before. He now felt very restless and irritable, and seemed to be in a state approaching delirium tremens, but was occasionally very desponding and depressed.

Considering that his complaints depended in some measure upon an irritable and debilitated state of the system, induced by the protracted, and perhaps injudicious use of mercury, whatever might have been the original nature of his disease, I put him on the following plan of treatment:—

Ioduret of iron, two grains;
Extract of lettuce, one and a half grains;
Extract of gentian, two grains.

A pill to be taken twice a day.

Compound decoction of sarsaparilla, a wine-glassful twice a day.

Hydriod. of potass, fifteen grains;
Water, twelve ounces; for a lotion.

27. The swellings of the scalp are greatly diminished, and he has not suffered any pain during the last few days. He says that for the first three or four days after applying the lotion, he suffered great anguish in the part, but he has not felt any since. He now sleeps well at night, and his appetite, which was formerly very bad, has become

improved. There is now no tenderness on pressure. The sloughs have become partially separated. Appearance of healthy granulations.

April 3. There has been a slight extension of the ulceration in one part; healthy granulations are, however, spreading over the greater part of the ulcerated surface, and cicatrization is commencing from the margin.

10. He was ordered to have a warm pump bath upon the part, with a view to cleanse the wounds, and give a new and increased action to the vessels.

17. The use of the pump bath has had the effect of entirely reducing the swellings, and nothing now remains but a little thickening of the periosteum: with a view to produce the absorption of this, and to assist in the complete cicatrization of the sores, the following ointment was ordered to be applied at night,

Ioduret of lead, ten grains;
Spermaceti, one ounce.

He continues to use the lotion in the daytime.

May 29. Six weeks after admission. The patient has been gradually getting better since last report, and his disease at the present time has assumed the following improved appearance. The swelling of the periosteum and superjacent integument has entirely subsided, and the ulceration has healed, with the exception of a very small portion, which is daily becoming less and less. He suffers no pain in the part, sleeps well, and expresses himself as being restored to a state of perfect health.

REMARKS.—It is not improbable that the affection of the bones in this case was the result of the injudicious use of mercury, for the treatment of eruptive symptoms, whether venereal or not, acting on an irritable and gouty constitution, further impaired by a long residence in tropical climates; at least this is the opinion I formed of the disease; and the rapid and daily marked improvement which took place on the discontinuance of the mercurial treatment, leads me to think my surmises were not altogether incorrect. The value of the treatment by iodine, in such complaints as these, is here also fully evidenced, and this case may, I think, be considered as an additional proof of its efficacy in chronic subacute inflammation of the bones and periosteum, from whatever cause arising. I have no doubt, however, that the cure was much hastened by the unremitted use of the hot-water pump; which I consider a very valuable remedy in these affections, having had repeated opportunities of witnessing the good effects of its use in similar cases.

I may, perhaps, also mention that I have found great advantage to result from the employment of a combination of the extract of lettuce with the ioduret of iron, and tonics, in the manner spoken of in the foregoing case. I have observed that where the system has been for a length of time under the influence of secondary syphilitic disease, a peculiar irritability has been induced, which I imagine might exist quite independently of the use of mercury; at least I have remarked this condition, where there was no evidence of its having been administered; but whether produced directly by syphilitic contamination, or resulting from the improper use of mercury, in constitutions unfavourable to its exhibition, I have generally found

this combination have the effect of speedily allaying this general irritability of the system, and so greatly assist in the cure of these complaints.

FOREIGN MEDICAL LITERATURE.

SUCCESSFUL CASE OF CESAREAN OPERATION.

By M. GODEFROY.

M. PATRICE, twenty-four years of age, had been affected with rickets in her youth; she was now only four feet in height; had been married a year back to a man who was also rachitic; she had been two days in labour, when first seen by M. Godefroy, but the labour did not progress in the slightest degree. On examining by the touch, it was found that the vertex was firmly locked in the inlet of the pelvis, which measured less than two inches from before backwards. As it was judged impossible to effect deliverance by the forceps, the Cesarean operation was decided on, the more particularly as the chord was felt pulsating at one of the sides of the inlet. The operation was performed at once, in the usual manner: an incision about six inches in length was made along the linea alba, from the umbilicus to the pubis. The soft parts were divided layer by layer, until the peritoneum was exposed; the latter was then incised with great caution. Several portions of intestine which presented themselves were now held on one side, and the uterus was gradually divided along the median line, for about two inches: the last incisions permitted the placenta to be recognized through the thin layer of muscular tissue; it occupied the anterior part of the uterus, and was easily removed; the feet of the infant were now seized and delivery effected without much trouble. On dividing the umbilical chord the child cried lustily, and its life was eventually spared; it weighed six pounds. During this part of the operation it was not found necessary to tie a single vessel. The edges of the uterine wound were now cleansed of blood, and the contraction of the organ quickly arrested all hæmorrhage; still there existed a space of about an inch between the edges of the wound in the uterus; this rendered it advisable to apply three ligatures, which were drawn together slightly, and cut off near the knots. Five ligatures were also applied to the abdominal wound, comprising the whole thickness of the muscles, and even the peritoneum; a small aperture being left at the lower part of the wound, for the exit of pus. The usual dressings, bandages, &c. were next applied, and the patient carried to bed.

The woman passed a good night. On the following day, as the pulse was somewhat hard and frequent, sixteen ounces of blood were drawn from the arm; and the bleeding was repeated on the next day but one.

30. No evacuation has taken place from the bowels; an ounce of the tartrate of potass was given, but it excited vomiting, and a single evacuation; no pain in the abdomen; the lochia continue to pass off through the vagina. Enemata were now given to keep the bowels regular.

April 1. The dressings were removed to-day; they are scarcely marked by pus; the wound looks healthy. Everything went on favourably. On

the 6th the wound was completely united; and on the 24th there was no longer any trace of suppuration. The woman was soon restored to perfect health.—*Journ. des Con. Med. Chir.*, June, 1841.

The same number contains another case of Cesarean operation, which terminated fatally for the mother. The life of the child was saved.

THE CHLORIDE OF SODIUM IN PULMONARY CONSUMPTION.

SOME time ago M. Amedée Latour published a memoir on the good effects of chloride of sodium in pulmonary consumption. He has recently made public two cases which seem to place this remedy in a very favourable point of view.

A young girl, fourteen years of age, had been ill for several months; when seen by M. Latour, she presented the following symptoms: excessive dyspnoea, compelling the patient to sit up, almost constantly, in bed; great prostration of strength; pulse frequent; skin dry; tongue red; night sweat; she coughed frequently, with opaque expectoration. On examining the chest, there were found dulness and the "bruit de pot felé," at the upper part of the left side. The cavernous respiration and gurgling were most distinctly heard on the left side, above, behind, and under the axilla; in the rest of the left lung nothing was heard but various ronchi, which completely masked the respiratory sound. As it was thought that this was a hopeless case, nothing was done for it, until the entreaties of the parents induced M. Latour to try the effects of medicine. To combat the diarrhoea he ordered an emulsion of the white of egg, which had the desired effect. The chloride of sodium was now given, and the diet gradually improved. In fifteen days the patient was so much improved that she was able to leave her bed for some time, and walk about the courtyard; and after a lapse of six weeks all unfavourable symptoms had disappeared. The catamenia now showed regularly; the girl's health was gradually restored, and two years have now elapsed without any appearance of a return of the complaint.—*Jour. de Med.*, June, 1841

VACCINATION.

THE following is a copy of the petition recently addressed by Dr. Bedingfield to the House of Commons, on the subject of vaccination.

The petition of James Bedingfield, M.D., and legally qualified practitioner of medicine and surgery, humbly sheweth:—

1. That your petitioner regards with high satisfaction the recent measure which has been enacted by the legislature, for the prevention of that loathsome and destructive pestilence the small-pox, and for the diffusion of its antidote,

2. That your humble petitioner, with the view of seconding the benevolent intentions of your honourable house, is willing to extend the blessing of vaccination to the mechanical and agricultural labourer, as well as to all persons standing in need of parochial relief, either gratuitously, or upon

such terms as may be deemed reasonable by the board of guardians, and other parochial authorities: at the same time, your petitioner, in justice to himself and his professional brethren, feels bound to state that the scale of remuneration imposed, and through the medium of the *disgraceful* and *demoralising system of tender enforced*, by the Poor-law Commissioners, bears a very inadequate proportion to the services required.

3. That, in the humble opinion of your petitioner, some serious but probably unintentional errors have been committed in the construction or wording of the legislative enactment, to which reference is made in the first clause of this petition.

4. That, in the opinion of your petitioner, the legislature never had in contemplation the disfranchisement or pauperizing of those who might unwittingly accept of the *indirect* parochial relief proffered to them in the recent enactment; neither can your petitioner persuade himself that the legislature ever intended to control or interfere with the private practice and emoluments of medical men by calling them to vaccinate, for an inadequate consideration, those whose circumstances enable them to defray the ordinary and very moderate charges of the profession.

5. That although your petitioner cannot recognize the principle of interference with his private rights, thus sought to be established, nor comply with the requisition to vaccinate the prince, the peer, the man of fortune, the merchant, the substantial yeomen, and the opulent tradesman, upon the same terms as he is willing to extend his services to the poor and necessitous; yet, impressed with the importance of rendering vaccination a continuous and uniform practice, your petitioner pledges himself to use all his influence amongst his connexions to induce them to insure success to the humane intentions of the legislature, by submitting their children to the process of vaccination, within a period of six months subsequent to their birth.

6. That, in the humble opinion of your petitioner, the prejudice against vaccination, which unfortunately existed in the minds of the ignorant and uneducated, previously to the passing of the Vaccination Bill, has been increased in a tenfold degree by the execution of the measure having been entrusted to the Poor-law Commissioners, and that this circumstance will prove an *insuperable* barrier to its universal adoption; and, at the same time, that the insolent and tyrannical conduct of these commissioners has excited in your petitioner, and in the whole profession, feelings of *indignation* and *disgust*; your petitioner therefore most humbly and respectfully suggests, that the future conduct of the measure be taken out of the hands of the commissioners, and entrusted to Mr. Ceely of Aylesbury, a gentleman whose indefatigable and philosophical researches into the nature and protective properties of the cow-pox so superlatively qualify him for the office, and whose distinguished services to science and humanity eminently entitle him to *national distinction* and *reward*; and your petitioner, as in duty bound, will ever pray.)

JAMES BEDINGFIELD.

Stowmarket, Suffolk,
May 16, 1841.

UNIVERSITY COLLEGE HOSPITAL.

An office of assistant-surgeon has been created at this hospital. There are numerous candidates in the field, but the election, we understand, will rest between Mr. Malcom Hilles, Mr. Ancram, and Mr. Morton. The latter is supported by the influence of Mr. S. Cooper; Mr. Ancram by Mr. Liston. Mr. Malcom Hilles comes forward on independent principles: we heartily wish him success.

A deputation, consisting of Sir H. Halford, Dr. F. Hawkins, Dr. Babington, Dr. G. Burrows, and Dr. Todd, had an interview last week with the Marquis of Normanby at the Home Office.

BOOKS RECEIVED.

Philosophic Nuts, or the Philosophy of Things, as developed from the study of the Philosophy of Words. By Edward Johnson, Esq. No. 7. Simpkin and Co., London, 1841.

The Surgeon's Vade Mecum. By Robert Druitt. Second Edition. Renshaw, London, 1841. 8vo. pp. 524.

The Retrospect of Practical Medicine and Surgery, &c. By W. Braithwaite. January—June, 1841. Simpkin and Co., London.

[This excellent work increases in utility and interest. The present volume concludes with a short retrospective review of the progress of medical science during the past six months. Little worthy of notice has escaped the penetration of Mr. Braithwaite, but one or two points are not quite so new as to deserve a place in the present number. The mercurial treatment of small-pox, for example, is anything but a novelty.]

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, June 25, 1841.—James Teasdale Brumwell, Thomas Bodkin, John Wilson Croker Pennell, Philip Lavery, Augustus Fuller, John Johnston, William Burdett Sellers, George Faris Harpur.

Monday, June 28.—George Harvey Williams, Henry Browne Greene, George Canney, Joseph Harrison, James Lithgow, Thomas Browne Anstie, Samuel Beecroft, Samuel John Boulter, Richard Sharpe.

Printed by THOMAS ISOTSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JOSIAH PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMNEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, July 2, 1841.

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COURSE
OF
LECTURES ON PHYSIOLOGY AND
SURGERY,
DELIVERED AT ST. GEORGE'S HOSPITAL,
BY JOHN HUNTER, F.R.S.
(From the Manuscript of Dr. Thomas Shute.)

LECTURE VII.

Parts admitting most readily of inflammation.

ALL parts admit of inflammation, but those which are situated externally admit most readily of the suppurative inflammation. The three species of inflammation only occur in the cellular membrane and circumscribed cavities. All those which have outlets only, admit of the suppurative. If such granulate then, they may unite, but not otherwise. The vital and deeper-seated parts do not naturally admit of suppuration, not even when extraneous substances are lodged in them; a cyst forms round them in which they are contained without irritating the surrounding parts: but if the extraneous body comes towards the skin, it excites suppuration; thus, a needle passing through the cellular membrane after being swallowed, produces no uneasiness till near the skin, when it causes suppuration. Cows that feed in bleaching grounds, are found to have their stomachs stuck full of pins, licked up with the grass, without inconvenience or inflammation. Ulceration is not necessary unless the matter is confined. Sometimes it takes place, however, in the stomach and intestines: this must arise from some extraordinary debility in the part, owing to a violent preceding inflammation. When parts become so weakened that they are incapable of supporting themselves, then the constitution will take them up. Great weakness is a stimulus to absorption: thus, in salivation it is frequent for ulcers to form about the throat and gums, from the excessive weakness of those parts. In strong and healthy constitutions, all the processes of inflammation are performed rapidly and well.

Constitutions which are most healthy are least affected by inflammation; the surrounding parts not sympathizing much.

Any new action, whether healthy or unhealthy, produces weakness, and that causes rigor. All new actions, though they may have ever so healthy a tendency, produce weakness at first: the constitution is unable to go into a new mode of action without being at first weakened, whatever good effects it may in time produce.

All inflammation begins at a point, and afterwards extends itself. The degree of its extension depends on the part that is inflamed, and the state of the constitution. If any part is punctured, the inflammation will extend itself round it, which is

owing to the contiguous parts sympathizing with it; but the inflammation is always the greatest at the part where it began, gradually diminishing from the point.

The swelling in inflammation is caused by the coagulable lymph extravasated in the cellular membrane; and also of some serum, which separates from the lymph, and causes oedema beyond the inflammation. It is a mark of a sound inflammation when it is circumscribed, tense, and gradually terminating at its edges. The tension is usually greatest just below the inflamed points, the coagulable lymph falling on the dependent part. The colour of inflammation arises from three causes:—1st, the arteries are more distended with blood than usual; 2nd, Those vessels which usually only carry a pellucid fluid are distended with blood; 3rd, the part becomes more vascular. The blood in an inflamed part does not change its colour in passing from the arteries to the veins, as at other times.

The progress of inflammation may be observed by making an incision on the inside of a dog's thigh.

State of the blood in inflammation.

The blood always changes with the constitution, and at the same instant. I doubt whether the blood may not change first. A watchman was wounded in the loins by a small sword; some blood was taken from his arm, and it appeared perfectly good: a rigor came on; some more blood was taken from the orifice almost immediately after, and it was very sizey. In an inflamed state its visible parts readily separate. It is long in coagulating, which is the cause of the size on its surface. Whether this arises from an increase of animal life, or from an increase of the disposition to act, the powers of life remaining the same, is not easily determined; the state of the blood in fevers seems to favour the last idea: in pregnancy it being always sizey, favours the former.

From there being so many animals with scarcely any red blood, and also from there being so many parts of the human subject almost without it, its use does not appear to be very extensive. In the strong pectoral muscle of most birds, there is scarcely any; extraordinary actions however bring it forth into those parts where it is not usually found. In the pectoral muscle of a swallow, there is more red blood than in the same muscle of most other birds; but in the legs of this bird, the muscles are white. Whether red blood does good or harm in inflamed parts, I do not know. In inflammation, the blood appears to be forced into the veins, without undergoing its proper change; it appears as florid in the veins as in the arteries. This also appears to be the case in some fevers; the blood taken from the arm appearing like arterial blood, of the pale scarlet colour. There seems to be an increased degree of heat in inflamed parts, but although this is so to our sensations, yet I doubt

whether the parts are actually hotter. I think the experiment might be tried, by putting a thermometer into the rectum of a patient, who has an abscess forming on the side of it.

Pain arises from an alteration in the position of solid parts in a medium of time. The alteration may be so slow, as not to be felt: an instance of this is the great dissension of the abdomen in ascites. It also may be so quick as not to be perceived at the time, which frequently happens in gun-shot wounds, people having had their limbs shot off without knowing it. The pain at the beginning of an inflammation is rather heavy than acute; it afterwards gradually changes to the acute pain. The pain is greater at the dilation than the contraction of the arteries, from which it would appear that the arteries exert themselves very little in contracting, for an inflamed muscle is considerably more painful when it contracts. The bladder when inflamed gives very little pain during its distension to a moderate degree, but when it contracts, the pain is very considerable. The nerves are most irritable when distended, which occasions the pain in inflamed parts. When parts are determined for resolution, they soon perform it, leaving the parts in the same state they were before, except, perhaps, some adhesions. How this is performed it is difficult to understand: that parts may be thrown into an extraordinary action is easy to conceive, but what power it is that brings them back to their former state is not easily imagined. Perhaps the parts are like a spring, when performing more than common action they constantly endeavour to return to their former state. The spreading of inflammation is less in proportion to the health of parts, the sympathy being least when the parts are healthy and strong. The difference of inflammation principally depends on sympathy. The appearances of a healthy inflammation are the same, whether it arises from the constitution, a preternatural action, or from injury. When the inflammation arises from the constitution it is salutary, removing some general irritation. The extravasated coagulable lymph becomes vascular, and forms a basis for granulations to shoot from.

Adhesive Inflammation.

This species of inflammation is beneficial in preventing suppuration, and if it should take place, in preventing the matter from spreading. When any extraneous substance is to be removed, it is then necessary that the parts should suppurate. This inflammation causes contiguous parts to unite by the coagulable lymph which is thrown out; when it passes through inflamed vessels, it coagulates with greater firmness. At such times it is thrown out in great abundance, filling the inflamed cavities of cellular membrane and uniting them.

The pain is not acute, and when the inflammation arises from violence, there frequently is little or no uneasiness. Simple fractures are often attended with very little pain: when there is, probably, it arises from the laceration. There are few people who have not some adhesion in one of the cavities, as we generally find in opening of bodies, although it cannot be remembered that they have had any particular pain. Bruises are often attended with very little pain. It is proportioned to the quickness of its increase.

For adhesion to take place, it is necessary that the parts should be in contact. In performing the operation for the radical cure of hydrocele, it sometimes happens that the tunica vaginalis falls in folds round the testis, and the projecting parts from not coming in contact do not adhere, leaving vacuities, in which the water sometimes afterwards accumulates.

For two surfaces to adhere, it is not necessary that both should be inflamed. For instance, the pleura covering the lungs being inflamed, will adhere to that which covers the ribs, and is uninfamed, by the coagulable lymph which is thrown out from the first. I think that if it could be dropped between two uninfamed surfaces, that it would unite them. This inflammation prevents the suppurative from taking place. In the case where I performed the Cæsarean operation the patient was very thin, and the sides of the wound could not be brought in exact contact, as they only touched at those places where the sutures were immediately situated. In 27 hours after the operation, the patient died. On opening the abdomen, the intestines were found adhering to the wound, and all round it, for about an inch, so as to exclude the general cavity from all exposure: thus then, the adhesive inflammation prevented the general cavity from becoming inflamed, and also prevented suppuration. If adhesion cannot take place, suppuration follows, which happens in the cavity of the chest, when there is water. Water in the chest prevents the surfaces of the pleura from coming in contact: if the surface of the lungs becomes inflamed at this time, nature, not knowing the impediment to adhesion, throws out coagulable lymph; adhesion not taking place, suppuration follows; the matter throws off the coagulable lymph; therefore when the patient is opened, the lymph and matter are found floating in the water. In the spurious empyema the lungs adhere to the pleura, between which, and in the centre of the inflammation, matter forms; the surrounding adhesions prevent it from getting into the cavity of the thorax, and it gradually opens externally, healing as a common abscess. If it opens into the lungs, matter is coughed up producing consumption.

In the lungs there are two principles, one of the internal substance, the other of the secreting membrane: the first admits of adhesion as in other parts, but the last, when it inflames, passes immediately into the suppurative, not admitting of the adhesive. When patients cough up matter, in general there is no ulcer, although in common it is supposed that there is one. The adhesive inflammation by thickening parts gives strength.

The utility of the adhesive inflammation may be shown by contrasting it with the erysipelatous. The erysipelatous inflammation is usually situated on the surface, diffusing itself over the skin, and not entering into the cellular membrane, neither producing adhesions nor suppuration. When deeper seated it sometimes suppurates, and then, for want of adhesions sufficiently strong to confine the matter, it is diffused through the cellular membrane. This suppuration is generally the forerunner of mortification. A gentleman's servant had matter formed in perineo, which extended into the scrotum; a very free opening was made to discharge it; notwithstanding it extended itself further; it was again opened, and thus repeated several times, till it had extended itself over the

chest and to other parts, under which he gradually sank.

Union by the first intention.

This seems to be performed in two ways:—the first is when the lips of a wound are brought together while bleeding, which by coagulating unites them, preventing exposure and the necessity of the adhesive inflammation. But if the sides of a wound are left separated for some hours, until all bleeding has ceased and inflammation come on, they may be united, for the coagulable lymph which is thrown out from the inflamed vessels will cause them to adhere. If the wound remains long exposed, the suppurative inflammation will begin, and then the union must be performed by granulations. How long a wound may be exposed before the adhesive inflammation leaves it, cannot be determined; it will vary according to circumstances. That the adhesive often remains for days, may be known by the lint sticking to the wound. It is probable that the coagulable lymph is the living part of the blood, that it is this which forms the solids and becomes of itself vascular, the other parts being absorbed. The suppurative inflammation never takes place until the effort at union is lost. The suppurative is entirely produced from exposure.

The union of simple fractures is by the first intention, and by that of the first kind. Motion does not appear to prevent this, for in dogs, when their legs are broken, the bones unite when left to themselves, though they are continually shaking them about. The suppurative is produced when there is any extraneous body to be removed. But, if the body is endued with the living principle, it then only causes the adhesive inflammation. It is curious to observe the affinity there is between living bodies. Insects often lay their eggs in the frontal sinuses of ruminating animals, especially of sheep, in the tonsils of deer, the hides of oxen, and also in the rectum of horses; these do not stimulate the parts as extraneous substances would, producing suppuration; they only cause a slight adhesive inflammation, sufficient to glue them to the parts. In the ox's hide this inflammation thickens the surrounding parts, so as to defend the insect; if the insect is killed, suppuration is produced from the dead animal's acting extraneously.

The Guinea worm is sometimes several yards long; in extracting it, it is stretched out about an inch at a time, and thus left confined till the whole animal has moved that inch, to make itself easy in its situation; it is then stretched out another inch, and so on until it is quite drawn out. If the worm is broken and thus killed, then the adhesive inflammation comes on, as far as it extends, and a chain of abscesses are formed. While the worm is alive it causes little inconvenience, but as soon as dies it acts extraneously.

• Sutures are seldom used by the present surgeons, from their having been found so generally ineffectual; this arises from the great difficulty there is in general of bringing the sides of the wound in exact contact, which if not done, all the hollow places will be forming abscesses.

Matter and water will continue for years in the body without becoming putrid, yet if either of these fluids are let out, they become putrid in a short time, which would lead one to suppose that

they partook in some degree of the living principle. Matter is not putrid in the body, except it is caused by something putrid being mixed with it. When some piece of flesh has been deprived of its living principle by contusion or otherwise, it then causes the matter in contact with it to have a putrid smell, and we have the part come away in sloughs. It is sometimes improper to unite wounds when they are lacerated and contused, as suppuration must take place. Blood, when it cannot unite parts, forms granulations which sprout up from it.

On the cure of Inflammation.

It is found by experience that there are some substances possessing certain qualities within themselves, which by being applied to the human constitution internally are capable of producing a change: this is called medicine. What these qualities are in the medicine, or how the change is produced, we are unable to tell. Of the hidden virtues contained in such substances we know nothing *à priori*, they only can be known from their effects by experiments.

When medicine acts on an animal it must be in a state of solution, otherwise its operation would be mechanical. Those substances which are soluble in water, are easily supposed to be soluble in animal juices; but not only these but almost all substances are soluble in an animal, which is proved by their being found in it; such as essential oil, earth, and even metals: it is very common to find iron. Those substances only can be tasted that are soluble in the saliva, and they must be dissolved by it before they can produce taste. Those substances which cause the sensation of smell, are probably soluble in the mucus of the nose.

Medicines can only act by the influence which they have on the living principle: they, therefore, only act by a stimulus. They act either by producing a natural action, increasing one, or exciting one contrary to the present; and that either in the whole body or in part. A medicine has its action according to two circumstances; its own powers and the disposition of the part acted upon. Mercury applied to a cancer has not the same action as when applied to a chancre, it has an operation different from that which it excites when continued after the cure of a chancre. As medicines often act on parts with which they are not in contact, their influence must be extended by sympathy. Sympathy is either local or specific; the latter is a mutual disposition to affect each other between two parts not naturally connected, as between the stomach and testicle. Sometimes medicines act on the very surface with which they are in contact.

Inflammation is to be cured in two ways; by weakening and by soothing. Weakening the constitution is performed by bleeding, purging, and vomiting.

Bleeding weakens the animal, because it is taking away so much of the life of that animal. When any part wants weakening, it is best to take the blood immediately from the part, or as near to it as possible; for a much smaller quantity will produce that effect, when taken from the inflamed part, than when taken from the constitution. In one case the constitution is generally affected, and the inflamed part only partakes of that affection in common with other parts. In the other case the

part is particularly weakened, without scarcely at all affecting the constitution. Parts become weak probably in proportion to the blood which they lose; a pound of blood, therefore, taken from the constitution will not weaken a part so much as an ounce taken immediately from it, the part not being so much as the sixteenth of the whole. Thus, then, by topical bleeding, a part may, as it were, be made to faint, independent of the whole. Bleeding weakens in proportion to the quickness with which the blood is taken away, for when the blood is drawn off very slowly, the parts have time to accommodate themselves to the evacuation, and it is not near so sensibly felt. In the abating or curing of inflammation, its nature and situation ought to be considered. There is scarcely any constitution so healthy, but it has a tendency to some disease. According to the state of the constitution inflammation will differ, therefore the treatment must differ. And in the same constitution the treatment must differ according to its situation and the distance from the heart. A disease in the shoulder will bear a greater loss of blood than a disease in the leg; for in the leg a greater degree of life is necessary to cure the same disease than in the shoulder, consequently the blood must not be taken away so freely, because it is weakening the living principle.

Taking away large quantities of blood is a very serious affair, for the constitution may be so much impaired by it as never to be able to return to its healthy state again. This, however, in some cases must be dispensed with; when inflammation has attacked a vital part, suppuration must not be suffered to take place, be the consequence what it will.

If matter forms, under certain circumstances, the patient must die, therefore in these cases any future mischief brought on the constitution by bleeding must not be considered.

In other parts of the body the case is very different, because there the constitution is generally able to manage the suppuration.

The vital powers may be so reduced by bleeding, that it will become even the cause of the continuance of inflammation; that is, the habit may be made so irritable as to continue the inflammation, not having power to stop it, nor to produce suppuration. This, then, will be worse than if it had been suffered to take its course, because then suppuration would have terminated it; but now from weakness it will be unable to change its disposition. Sickness lessens the power of life, therefore vomits are useful in abating inflammation; but if carried so far as full vomiting, they counteract their first effect, for full vomiting rouses the powers of life. Whatever causes nausea produces weakness, but vomiting is a reaction. Fluids taken into the vessels in large quantities lessen pain. Purges weaken the constitution very much. It would be impossible for a man to bear purging every day for a twelvemonth. These have been generally exhibited from an absurd notion that they drain off pernicious humours. In some cases the evacuation of a copious stool will weaken surprisingly—there have been many instances of dropsical people dying on the close-stool from a large evacuation of faeces. This appears extraordinary, because it seems to be only an evacuation of extraneous matter. It may be said that it is caused by the large secretion that is

necessary from the intestines; but this cannot be the reason, for all the necessary secretion must have been previous to the evacuation, therefore the constitution loses nothing by it. I cannot account for it. Sudorifics have a sedative operation. The skin appears to be the second principle in the animal economy; the stomach the first. Tinctura thebaica, mixed in a poultice, will produce soothing effects on a sore, and prevent its spreading by abating the irritation, consequently will dispose it to heal, especially if the bark is given at the same time. Opium lessens action, yet in some cases it increases irritability. In a constant irritation to make water, opiate clysters are useful.

Local applications.

It is doubtful whether there are any which weaken a part with good effect. Those that we have are chiefly of the soothing kind. Cold is, perhaps, the greatest weakener, but to be cautiously used, as an indolent inflammation may be substituted by it.

Lead is not simply a lessener of powers, it produces rather a disease which lessens powers, therefore it should be cautiously used. Goulard's preparations are so generally used, sometimes to weaken, sometimes to strengthen, that they are generally hurtful. It is doubtful whether there are any local strengtheners. Local applications act on the body in three ways—by locality, sympathy, or derivation.

Applications which act locally and immediately on the part, are such as by their stimulus increase the action, or change the action to another. Thus, by raising a contrary stimulus, specific inflammations are often cured. A blister, or an incision into a node often cures it, by raising a new power in the part. The inflammation produced by violence overcomes the specific. Solutions of corrosive sublimate cure inflammations of the skin on the same principle.

Scrofula and cancer are exceptions to this rule. Wherever there is a scrofulous inflammation, producing inflammation by external violence will not cure it; the inflammation raised will ever be of the scrofulous kind, and the more mischief is done to the part, the more this inflammation will increase. And the same in cancer. It is common to hear surgeons talk of repellants, and the ideas they have of the ill effects of repellants. This arises from their erroneous ideas of morbid matter being driven into the constitution. Repulsion is nothing more than the alteration of the action, and is the cure of the part.

Topical applications act by sympathy, when they are not immediately applied to the part, but to a part that will sympathize with it. Thus fomenting the scrotum will soothe and abate the inflammation of the testes:—the abdomen an inflammation of the intestines. It is the same in common superficial inflammations; the integuments are inflamed, and the cellular membrane underneath; the applications cannot penetrate to the latter, yet by soothing the integuments, the deep-seated inflammation will abate from sympathizing with the external parts. The constitution, in general, sympathizes with the stomach, therefore when the stomach is affected, every part of the body is affected. Nothing tends more to abate inflammation than sickness at the stomach; sick-

ness diminishing very much the living principle: of course vomits must abate inflammation, and particularly in the testis, from its sympathizing more particularly with the stomach. On this principle vomits cure white swellings.

Derivation is the reverse of sympathy; it is the raising of one inflammation to cure another at a distance. Thus an inflammation on a part of the lungs may be removed by raising another inflammation at a distance from it; but not on another part of the lungs, for by this we should gain nothing, an inflammation on one part of it being as dangerous as on another; but if we can remove the internal inflammation by producing one on the integuments, then considerable advantage is gained; the inflammation being removed from a vital part to one that is superficial, and may be easily managed. The toothache is cured by burning the ear on the same principle. A counter stimulus acts more powerfully than any sedative application.

In the actions of medicines two powers are to be considered: the power of the medicine, and the power of the part on which it is to act. It is also to be considered that medicines cause different actions in sound parts than they do in those which are diseased. For instance, mercury increases the action of parts, and when that action is venereal, it will change that action to a sound one; but, if the action is cancerous, it will increase such action.

The local effects of medicines are most simple, but their effects may be carried further than the parts of contact, by sympathy. As the disease extends by sympathy, so probably the action of medicines extends to the same parts, and equally as far, in like manner. Some medicines are said to be penetrating, and the idea is, that they enter the pores of the part, diffusing themselves about as water absorbed by a sponge. It is however impossible for any fluids to enter the surface of a living body in this manner, nor even that which is dead, before some change has taken place. Water may enter and relax the cuticle, it being a dead part, but it can pass no further. Fomentations are said to penetrate; but if that was the principle on which they acted, then warm water would be more efficacious than steam, because the first is more penetrating than the last. The first will pass through shammy leather, and the last cannot. Steam is the better conductor of heat.

With two eminent surgeons I attended a patient with a dislocated shoulder, where the head of the bone was lodged under the infraspinatus muscle: various methods were tried to reduce it without effect. The surgeons advised the warm bath, on the principle of relaxing the parts. The warm bath might abate the inflammation and take off the irritation of the habit, but it could act no otherwise, every part of an animal being perfectly moist. All these supposed penetrating applications act by sympathy, for it is impossible for anything to enter otherwise than by absorption.

It should be considered when a local cure ought to be performed. A constitutional disease terminating in a local inflammation, should not be prevented; because it is preventing the disease from settling, and keeping it diffused over the constitution, or perhaps may cause it to settle on some vital part. But it is not necessary to encourage suppuration, that not being what is intended by

nature; suppuration is something superadded, and does not assist in the removal of the disease, for when suppuration begins, inflammation abates, and inflammation is the intention of nature. If the inflammation can be kept up, and suppuration not produced, then nature will be assisted. When the cure of inflammation by resolution is determined on, local applications will in general be better than those which act by sympathy. Sometimes there are two parts that sympathize very much with each other, one of which will be very much affected by a medicine, which if applied to the other, will have no effect at all. Thus it is with the stomach and testis; if ipecacuanha is given to the stomach, it will abate pain and inflammation in the testis, but if applied to the testis it will produce no effect. There are other applications that will cure when applied at a distance from the part, that would destroy if in contact with it.

If the inflammation arises from a local disease, it will be right to cure it as soon as possible. The sooner the inflammation of a virulent gonorrhoea is removed the better: there is no danger in using injections or repelling the disease into the constitution, for whatever will stop the suppuration will prevent the patient from being poxed. The disease can only get into the constitution by an absorption of pus. When matter is formed in an abscess it will be proper to repel it, if possible. Pus is nothing more than a consequence of inflammation, and not the intention of nature. It is not a deposit of anything obnoxious to the habit, therefore taking away a quantity of matter is only like taking away so much good blood. Critical inflammation is only a termination of the disposition of the constitution.

CONTRIBUTIONS TO THE PATHOLOGY OF CHILDREN.

By P. HENNIS GREEN, M.B.

LECTURER ON DISEASES OF CHILDREN AT THE HUNTERIAN SCHOOL OF MEDICINE.

EPILEPTIC AFFECTIONS.

CASE I.—CECILIA BRIGAUT, 22 months of age, born at Paris, of healthy parents, not vaccinated, was admitted into hospital on the 2d of February, said to be affected with some spasmodic disease of the respiratory organs. Since the beginning of winter, the child has suffered under irregular attacks of epilepsy, which consist in spasmodic contractions of the limbs, blueness of the face, and occasionally foam at the mouth. For the last fortnight the accessions have ceased, but there was a peculiar catching and whistling sound during respiration, that induced the parents to bring their child to the hospital.

3. While examining the infant this morning, she was seized with one of these fits; the face became suddenly flushed, the head thrown back, and there was a sound produced similar to that which takes place during the long inspiration of a fit of whooping-cough.* There was, however, no cough either before or after the access, nor any expectoration; the spasmodic affection of the respiratory organs lasted one or two minutes, and

* Having since witnessed numerous cases of laryngismus stridulus, I have no hesitation in classing the affection here noted with it.

the child then became apparently well. On examining carefully the throat, we could not find any trace of redness or inflammatory action; there was no pain evinced on making pressure over the larynx; the skin was quite cool, and the pulse natural. Percussion and auscultation of the chest furnished nothing but negative results.

On the presumed analogy between this affection and whooping-cough, the extract of belladonna was given in gradually-increased doses; this had the desired effect; the fits of stridulous inspiration became gradually slighter, and ceased altogether on the 12th of February. The child was now removed from the hospital, but unfortunately had received the contagion of small-pox; eight days afterwards she was brought back with the premonitory fever of variola. The small-pox eruption came forward in an imperfect manner; the epileptic fits now recurred with their former violence; were repeated every quarter of an hour; and the child died in one of the fits on the third day of the eruption.

Post-mortem appearances.

The small-pox pustules were scarcely to be distinguished; they were of a purple colour, the skin in the intervals being quite pale. On opening the head about an ounce of clear serum was found at the base of the cranium, and a tea-spoonful in each lateral ventricle; the pia mater, also, was infiltrated with serum; the arachnoid was transparent and free from any trace of disease; the vessels of the pia mater moderately injected. The brain and spinal marrow were divided into thin slices, but no trace of injection, inflammation, softening or tubercular deposit, could be discovered; the pneumogastric nerves were also examined, and found to be free from lesion. The lining membrane of the larynx, trachea, and large bronchial tubes, was perfectly healthy; near the termination of the bronchi, however, there was some congestion. Left lung healthy; the right lung contains two or three nodules of indurated tissue, not larger than nuts; bronchial glands free from tubercular deposit. The organs contained in the cavity of the abdomen were all perfectly healthy; no worms.

Remarks.—The disease, so familiar to the English physician, under the name of laryngismus stridulus, is totally unknown to the French practitioner. The accesses of stridulous breathing, under which the subject of the above case laboured, were certainly examples of this affection, although they were considered by the physician of the "Enfants malades" to belong to whooping-cough. It is, however, worthy of note that the extract of belladonna, which is employed with so much success in the French hospital to combat the spasmodic element of whooping-cough, was equally beneficial in the present instance. The fits of stridulous breathing disappeared, under the influence of this remedy, within the period of eight days. The post-mortem appearances threw no light whatever on the cause of the original epileptic accesses, or the more recent spasmodic affection

of the larynx; for the fluid contained in the cavity of the cranium was, in all probability, effused but a short time before death.

CASE II.—A young girl, 11 years of age, of nervous, irritable temperament, was seized, about the middle of March, after a violent fit of anger, with an access of general convulsion, with rigidity of the limbs, strabismus, deviation of the mouth, and partial loss of consciousness; the fit lasted half an hour, and was followed by severe headache, with dull pains in the limbs; the same kind of accesses recurred several times on the first day of their invasion, and the following days also; foaming at the mouth was noticed once only. On the third day after her attack, the child was admitted into hospital. Leeches were now applied behind the ears; sinapisms to the legs; and purgatives with antispasmodics were administered. Under the use of these means the accesses gradually diminished in frequency and intensity, and the patient was taken home; she soon, however, relapsed to her former state, which continued to the 4th of April, when she was seized with febrile symptoms, vomiting, cough, and sneezing, and was readmitted.

April 4. The face is now flushed; the conjunctivæ injected, with frequent discharge of tears; the child sneezes frequently; there is severe headache, with delirium and agitation during the night; trembling of the lips and tongue, and numbness of the left arm, without contraction or convulsive movement; tongue red at the tip and edges; thirst excessive; skin hot and dry; pulse 120; coughs frequently, without any change of the respiratory sound or resonance of the chest; abdomen free from pain; no vomiting or diarrhoea. These symptoms were evidently premonitory of some exanthematous fever; they indicated the approach of measles rather than any other exanthema, but as the child had not been vaccinated, and the symptoms were unusually severe, variola was apprehended. Sinapisms were applied to the lower extremities, and a decoction of emollient herbs administered internally.

5. The child has been violently delirious during the night; she got out of bed, ran about the wards, and was confined with some difficulty; in the morning her intellect was quite clear; lips and tongue still affected with trembling; no spasmodic motion of the limbs; febrile symptoms undiminished; the cough, coryza, and injection of the conjunctivæ also persist; in the evening there appeared an eruption of small red spots on the face and neck.

7. The red spots now form as many papillæ sensible to the touch and sight; intense fever; great agitation; pulse 128; voice hoarse; coughs as before; complains of headache; there is some subsultus tendinum.

8. The whole skin is now covered with the eruption of measles, which presents the appearance of distinct papillæ, and not the usual horse-shoe patches, constituting what the French writers denominate "*rougeole boutonneux*." The patient took nothing but emollient emulsions.

9. The child spent a good night and slept well; pulse 72; the nervous symptoms have completely disappeared; eruption somewhat pale; abdomen painful on pressure; passed three fluid stools. Decoction of mallows, with gum.

10. Eruption disappearing on the lower part of the body; there is some furfuraceous desquamation on the face and neck; the child still coughs, and complains of pain in the chest; pulse 76; respiration 40.

11. The cough and diarrhoea persist; pulse 80.

12. Cough very troublesome, with expectoration of opaque mucus, not tinged with blood; fine dry crepitant râle at the lower part of the chest on the left side; pulse 124; respiration 52. Six ounces of blood were drawn from the arm; the blood presented the usual inflammatory crust.

13. The respiration is still quick and difficult; the crepitant râle larger and more moist. A blister was applied to the chest.

17. During the last few days, the symptoms of pneumonia gradually subsided, and have now completely disappeared; pulse 84; respiration 24; skin cool; respiratory sounds natural. From this period the child entered into a state of convalescence, and was dismissed cured on the 27th of April.

REMARKS.

One of the most remarkable circumstances in this case was the influence exercised by the eruptive fever on the epileptic attacks, to which the young patient was subject. For nearly a month the girl laboured under very severe and repeated epileptic accesses, when she was seized with the premonitory symptoms of an eruptive fever. These symptoms were extremely violent, and accompanied by considerable derangement of the nervous system, manifested by delirium, and a peculiar trembling of the lips and tongue. The nervous symptoms, however, and the epileptic attacks totally disappeared with the formation of the exanthematous eruption, and did not return. The particular form of the exanthema in this case is also worthy of notice; it appeared under the form of discrete papillæ, which bore, at the commencement, a very great resemblance to the incipient small-pox pustules; and, indeed, the disease was at first taken for variola by many of those who saw the patient.

During my attendance at the children's hospital, I have witnessed many examples of this curious influence of exanthematous over nervous disorders. In one case, convulsions of long standing were cured by an attack of scarlatina; in another case, permanent contraction of the lower extremities disappeared on the occurrence of measles, and no relapse took place after the child's convalescence. A young girl had suffered for more than a year from repeated attacks of epilepsy; while in hospital, the accesses became still more frequent, and recurred every quarter of an hour, reducing the little patient to the last stage of weakness and marasmus. The existence of some organic disease was confidently asserted by the hospital physician, when the child was seized with measles; the convulsive affection

suddenly disappeared, and was no more heard of during the sojourn of the patient in hospital.

CASE III.—The following case affords a good illustration of the effects of oxyde of zinc in certain forms of convulsion, which are closely allied to epilepsy.

A. Milhois, 15 months of age, is apparently of good constitution, and born of healthy parents, who never laboured under any disease of the nervous system; has only eight incisor teeth; was weaned at the age of 13 months, and soon afterwards was attacked by fits of an epileptic character; at first these did not recur very often, but they gradually became more frequent, and attacked the infant several times a day. The parents thought that they were generally excited by the administration of food. The child was admitted into hospital on the first of July, and placed on strict diet; some warm baths were administered. The epileptic fits were not long in showing themselves. Without any premonitory symptoms, the child was suddenly seized with agitation of the limbs and sharp cries; the expression of the face then became altered; the eye was fixed; the face of a purplish colour; the limbs rigid; the jaws clenched, and the mouth covered with foam; but this latter symptom was by no means constant. The respiration was troubled during the fit, being panting and very quick; the pulse, also, was extremely accelerated. The access usually lasted from five to ten minutes, when the child fell into a state of somnolence, from which it did not recover for half an hour. During the intervals of the fits, the pulse was natural, and all the functions were apparently undisturbed; the evacuations were carefully examined, but no trace of worms could be discovered in them.

July 3. The oxide of zinc was administered to-day, in two doses, of two grains each, morning and evening; the use of the warm bath was continued.

4 and 5. The epileptic fits recur with the same force and frequency; the ingestion of food does not seem to exercise any influence on them; for example, on the 6th, visitors' day, the child ate much more than usual, but had no attack on that day. The dose of the oxide of zinc is increased every day by two grains.

8. Had a severe fit; vomited two or three times during the day; the dose of zinc is now carried to twelve grains in the day. During the next few days the vomiting ceased, but the child was seized with diarrhoea and cough. The baths were omitted.

12. There was no fit to-day, nor yesterday; still it was thought prudent to continue the oxide of zinc up to the 22nd, when the little patient was taking 24 grains daily. The medicine was now discontinued, but the fit returned on the 23rd; it was therefore resumed on the 25th, and continued to the 30th, when the child was dismissed from the hospital, as no relapse had taken place. The parents were requested to bring the child back immediately on the appearance of a fit, but nothing has been heard of them since.

REMARKS.

The efficacy of the oxide of zinc in this case cannot be called in question. The patient had laboured under attacks of an epileptic nature for

two months, when it was first administered; for a few days no effect was apparently produced, but the attacks became afterwards milder and less frequent, and ceased completely within twelve days. The use of the remedy was now discontinued; the fits return; it is again administered, and the epileptic convulsions disappear. M. Guer-sant, who frequently employs the oxide of zinc in the convulsive affections of children, has remarked that it often occasions diarrhoea. The same effect was produced in the present case, but the diarrhoea was not troublesome; the oxide of zinc, therefore, acts not only as an antispasmodic, but as a reval-sive; and if it be advisable to prevent its action on the bowels, this may be readily obtained by combining it with the extracts of *cicuta*, *hyosciamus*, or opium.

London, July, 1841.

CASE OF CONGENITAL OBLITERATION OF THE OS UTERI,

CURED BY OPERATION.

By Dr. VON WATTMANN.

CHRISTINA LECHNER, 18 years of age, of sanguineous temperament and strong constitution, began to feel, when 15 years of age, a painful sensation of fulness in the abdomen, with occasional pains about the sacrum and loins, which ran down towards the knee; these symptoms were soon followed by a burning feel about the external organs of generation, headache, vertigo, &c. The catamenia, however, did not make their appearance. In the month of October, 1837, the patient caught cold, and all her symptoms were aggravated for some days. On the 1st of February, 1838, she was again severely attacked, and as the medical man who was called in suspected some organic obstacle to the discharge of the menstrual fluid, the girl was sent to an hospital on the 6th. The genital organs were small; a soft tumour, which seemed to be an enlarged uterus, was felt above the pelvis towards the left side. On making an internal examination, it was found that the vagina terminated in a *cul-de-sac*, no communication whatever being discoverable between it and the uterus. The operation was performed in the manner which will presently be described. A large quantity of thick dark blood was discharged through the canula, and from 12 to 14 ounces through the bent tube. The patient was then put to bed, and injections of warm water were thrown up twice a day; she complained of some pain in the lower part of the abdomen, with scalding on making water. Some fluid blood escaped daily through the tube; on the 20th the discharge was mucopurulent, and partly resembling the lochia; on the 10th of March it had very considerably diminished; on the 20th the tube was removed, and the opening was quite supple, and sufficiently large to admit the end of the finger. The discharge now soon ceased, and the patient was able to leave the

hospital on the 23rd of March. She has remained quite well ever since, the catamenia recurring regularly, without pain or other disagreeable symptom.

REMARKS.

Whenever, at the age of puberty, a young woman is affected with colicky pains of the abdomen for several months in succession, when we can feel a fluctuating tumour over the pelvis, and when, on examining through the vagina and rectum, we find evidence of the existence of an uterus—in such a case we must give exit to the retained menstrual fluid. Before we proceed, however, to any operation, we must make a most careful examination through the vagina and rectum. It frequently happens that the upper part of the vagina forms a very narrow *cul-de-sac*; hence, the intestine and bladder may be separated from each other by a short interval only, and might be wounded by a careless operator. Should any rudiment of an os tince exist, we at once have the point at which the opening into the uterus should be commenced; but when this rudiment is absent, we are compelled to trust to our sense of feeling, and endeavour to discover some point of fluctuation with the index finger of one hand in the vagina, and by firmly pressing with the other the tumour over the pelvis.

The instruments used are a male catheter, a trocar, (Flürant's), a long silver probe, a director, bistoury, forceps, and a bent tube, the diameter of which is about five to six lines at the broadest part, and two-and-a-half at the narrowest.

Before the operation, the rectum and bladder must both be carefully emptied, and the catheter should be left in the bladder as a guide to the operator. The latter now passes the index finger of the left hand into the vagina, and fixes the nail firmly against the point at which he judges proper to introduce the trocar. Having guided the canula and fixed it in the axis of the pelvis, he pushes the trocar until the sense of resistance ceases; the canula should next be passed up, until it enters the uterus, which is known by the discharge of dark blood. When this has ceased, the long probe is introduced into the uterus, the canula withdrawn, and a director conducted along the probe to the orifice in the uterus. The end of the bistoury is now placed in the director, and being carefully conducted to the uterine opening, the latter is enlarged by lateral incisions until it will admit the point of the index finger. Finally, the bent tube is passed into the opening until about one-third of it only remains in the vagina.

The after treatment is very simple; during the first two or three days, absolute rest and diet must be observed; after the third day, injections of warm water should be employed, to cleanse away the blood and secretions from the wound. The reaction is generally very slight; the discharge of blood ceases about the 14th day after the operation, and the presence of the tube excites little pain, except during violent motion of the body.—*Medicin. Jahrbücher. January, 1841.*

CLINICAL REMARKS

ON

TWO HUNDRED AND SIX CASES OF
TAPE WORM.

By Dr. WAWRUCH.

PROFESSOR OF THE PRACTICE OF MEDICINE AT THE UNIVERSITY
OF VIENNA.

DURING the period of twenty years, 206 patients affected with tape-worm were admitted into the clinical wards of Dr. Wawruch: of these 71 were males, 135 females. The oldest patient was fifty-four; the youngest three and a half years old; the greater number ranged between the ages of fifteen and forty. On the predisposing causes of tape-worm, the author is able to throw little or no light. A great majority of the patients came from a particular district, and diseases of the abdominal or dermal systems in early life, seemed to have some influence. Thus, 43 patients suffered under ague; 20 under gastro-intestinal disease; 16 under typhus; 10 from herpes; 41 from tinea capitis; 42 from itch; 8 from scarlatina; 13 from measles; 2 from chronic nettle-rash.

In the female sex, the author remarks that the presence of these worms was almost always accompanied by some derangement or anomaly of the menstrual secretion, generally consisting in a late appearance of the discharge.

Symptoms.—Some patients suffered very little, and were unaware of their being affected until a portion of the worm was discharged; in other cases the symptoms were better marked; those constantly observed were,

1. A dull pain in the forehead, with vertigo, and ringing in the ears.

2. Troubled sight, with a bluish circle round the eyes; oedema of the upper eye-lid; dilated pupil; rolling of the eye-balls; various disturbances of vision, as double vision, muscæ volitantes, &c.

3. Frequent changes of colour; loss of appetite, interchanging with voracious hunger; and a taste for certain substances.

4. Foul breath; earthy taste in the mouth; salivation; nausea and vomiting of a watery fluid towards morning.

5. Itching of the nose, anus, or vagina; grinding of the teeth, particularly during sleep.

6. Enlargement of the abdomen; rumbling of the bowels; a pinching, biting feel about the navel, with the sense of a foreign body moving in the intestines, especially towards morning; disappearance of these symptoms on taking warm broth, &c.; diarrhoea interchanging with constipation.

7. When the disease is of long standing, melancholy, and a great number of nervous derangements; loss of some sense, partial or general convulsions, epilepsy, chorea, &c.

8. The most certain sign is the discharge of a portion of the worm, which may occur without any evident cause; occurs during some disease, as typhus fever, &c.; or be the effect of remedies.

Treatment.—The same method of treatment was adopted in all the 206 cases, except where the constitution of the patient, or some other particular circumstance, rendered a modification necessary.

As a preparatory step, all the patients took a laxative decoction with sal ammoniac, for three, four, or five days, and ate nothing but weak soup

thrice a day. In eight cases the worm was expelled by the mere effect of continued abstinence. The anthelmintic remedies employed were, castor oil, and the powdered root of the male fern. From one to two table-spoonfuls of the oil were given as a dose, alternately with one or two drachms of the powder twice or thrice a day.

Enemata of oil and milk were frequently thrown up, to attract the worm towards the large intestine, and it was observed that the effect of the drastic was always most sure when given a certain time after the last dose of fern, than at once. The drastic purge employed was composed of equal parts of calomel, gamboge, and sugar, two to eight grains of each for a dose. In many cases a single dose brought the worm away, but, in others, three to six doses were required. The period at which the worm was discharged was very various. In eight cases, as has been already remarked, it was expelled by the mere effect of hunger; in 13 cases, by the anthelmintics alone; in 11 by the first, in 14 by the second, and in 15 cases by the third drastic purge; and, generally speaking, it was expelled within one to twelve hours after the last drastic. In a few cases, two, three, four, (and in one) twelve days elapsed after the last purge, before the worm was expelled. The tænia is not exclusively a solitary worm, for in nine cases there were two worms, of different ages and development; in two cases three worms. In one very remarkable case, four worms were discharged, and this patient still suffers from the complaint. Of the 206 cases, only 26 had a relapse; twenty of these came twice, five thrice, and one of them four times to the hospital. Some came in two to four months; two in nine months; two in a year. Generally speaking, the patient may expect to be entirely freed from his disease, if he pass ten or twelve weeks without discharging any remnants of the worm.

Med. Jahr. Feb. 1841.

PROVINCIAL

MEDICAL & SURGICAL JOURNAL.

SATURDAY, JULY 10, 1841.

At the present crisis of public affairs we are not very sanguine in the expectation that the claims of the medical profession will, or indeed can, meet with due attention. The interference of the legislature in respect to these claims can only be looked for when the direct bearing of the evils complained of, to the injury of the public, shall have been clearly made out. Perhaps the time, which must necessarily intervene before the settlement of questions of general politics can possibly take place, can scarcely be more profitably employed than in the endeavour fully to ascertain the extent of the existing evils, to indicate the remedial measures necessary for repressing them, and in again

and again bringing them forwards, until they acquire that degree of prominence before the public which shall necessarily and inevitably compel the attention of those in authority. In taking a review of the state of the medical profession, the question which seems to bear more immediately upon the interests of the community, and, therefore, most loudly calls for consideration and revision, is the qualification of the persons authorized, or to be authorized, by law to administer medical relief.

This question we look upon as being not only of paramount importance to the community, but constituting the groundwork of whatever is hereafter to be done for the protection and individual benefit of the medical practitioner. Before legislative interference is called for, to protect the rights or advance the interests of any body of men, some sufficient reason requires to be shown for such interference: while it should also be made evident, either that the public good will be promoted thereby, or that some tangible mischiefs will result from its being withheld.

It cannot for one instant be doubted that the services daily and hourly rendered to the community by the medical profession, are of the highest degree of importance; yet we believe that upon examination the truth of this opinion will be found to rest upon inference or implication, rather than upon any direct proof. It will be admitted that from the nature of the duties entrusted to the medical practitioner, he may become either the administrator of a vast amount of benefit, or the instrument of much evil to his fellow creatures, according as he is well or ill qualified for the office which he undertakes. Looking to the profession in their corporate capacity, what security is there that any individual practitioner has acquired, or is possessed of, the requisite qualifications—of those qualifications which shall, in virtue of his license to practise, at once entitle him to the confidence of the sick man or his friends? It has often been pointed out, that the tests of qualification at present adopted are not only unequal, but altogether insufficient and inoperative. The absurdity that the qualification for practising medicine, surgery, or both, shall be different in different parts of the kingdom, is sufficiently glaring; but it is an evil of still greater magnitude that the tests by which this amount of qualification is ascertained, should be, in the utmost degree, variable and uncertain. Some of the authorised schools of medicine in this country, until very lately, required no test whatever of the acquirements of the candidates for medical diplomas, but were content to confer their degree, with license to practise, on the payment of a spe-

cified fee. Others, again, deemed the attendance upon a few courses of lectures, of very limited number and extent, together with the having previously undergone an examination in classical literature, or some branches of mathematical science, a sufficient warrant for taking charge of the medical management of the sick. One collegiate institution makes it a matter of conscience to know nothing of medicine, or the nature of remedial measures whatever; while another refuses to admit to a participation in its privileges graduates of universities who produce certificates of having undergone regular and efficient oral and clinical instruction, but throws its doors open to the alumni of other schools, in which the means of inculcating sound and comprehensive medical knowledge are altogether inadequate.

Is a profession thus constituted entitled, as a body, to public confidence? Are its members entitled to claim protection and privileges at the hands of the legislature? or should not rather the first preliminary steps to further improvement be the abrogation of all such anomalies, a complete revision of the system of education, and the adoption of a searching and efficient test of qualification in every college and school of medicine throughout the kingdom? It will not be disputed that without a certain minimum amount of medical knowledge, theoretical as well as practical, no man can be safely entrusted to prescribe for the various diseases to which mankind are subject. Unless the practitioner be possessed of sufficient knowledge and skill to observe and appreciate the symptoms of disease, to foresee their probable progress, to estimate the powers of the various remedies, and to apply them in each instance according to the exigencies of the case, he cannot be competent to undertake the cure of any ailment however trifling. That this amount of knowledge is possessed by the vast majority of the medical practitioners in this country, we do not deny; but it may be asserted, without fear of contradiction, that there is no security to the public that such is the case. One entire branch of the profession may be taken as an instance. In country towns and districts, and not unfrequently in the metropolis also, the members of the London College of Surgeons are extensively engaged in the practice of medicine, treating, as occasion offers, medical and surgical cases indiscriminately. We have no doubt, also, that they are, for the most part, to the full as well qualified to do so as the members of the Apothecaries' Company; and, moreover, without a knowledge of the principles of medicine and the effects of internal remedial agents, they would be very unsafe guides in many of the cases now considered as exclusively appertaining to surgery. Yet

we find no less an authority than Mr. Anthony White, a member of the Council and of the Court of Examiners, and Vice-President of the College, asserting that "they know nothing but surgery; they have nothing to do with medicine or midwifery; and, as to pharmacy, they are not required to know what calomel is; its new name is foreign to their ears."

We have ever maintained that the Apothecaries' Company prostituted the powers conferred upon them by the Act of 1815, and violated the spirit of its provisions, when they instituted legal proceedings against members of the College of Surgeons; that in so doing they perverted to their own private ends those powers which they were appointed to hold and to exercise for the public advantage; but certainly, if we are to receive the dictum of Mr. Anthony White, the Apothecaries' Company must herein stand acquitted, and had their attempt been extended even to the prohibition of Mr. Anthony White himself from practising his own particular branch of the profession, they would have been fully justified by the terms of his own confession. Granting, however, which we are quite willing to do, that Mr. Anthony White knows nothing but surgery,—that he is entirely ignorant of pharmacy,—that he is so happy in his ignorance, and "where ignorance is bliss 'tis folly to be wise," as not even to know what calomel is, or the name by which its composition is indicated,—that to him all the medicines which he inflicts upon his patients in this, his blissful Elysium, are equally unknown,—is this a state of one of the leading institutions for licensing medical practitioners likely to gain or to deserve the confidence of the public? But leaving Mr. Anthony White alone in his glory, and to the full enjoyment of that reputation for ignorance of his profession to which he aspires, surely the exigencies of the public service require either that the College of Surgeons shall extend the course of study, or that the members of it shall be imperatively required to procure the license or diploma of some other body, before presuming to administer internally, or to direct the administration of powerful agents with which even one of their examiners professes an entire want of acquaintance. We look to the intelligence of the members of the college, individually so deservedly esteemed, to adopt, as a body, measures which shall wipe away this reproach, and shall certify to the public, that in prescribing an opiate after a severe operation, or an aperient when requisite, they are not counselling the administration of drugs with respect to the very nature and properties of which they are, according to their own statement, altogether in the dark. Other institutions also, which now possess

the privilege of conferring degrees in medicine and surgery, or licenses to practise, must be required to review their course of study, and, whatever they may deem it fitting to exact from their own students, should be compelled to provide instruction in certain essential branches of knowledge, and in their examinations so to test the candidates, as to make it apparent that their acquirements are genuine, and proportionate to the expectations which the public have a right to form.

But the evils here referred to are well known, and have been often and ably pointed out. The question now for consideration is the remedy. At present, the only means of making up for the deficiencies of qualification in the certificates of the recognised educational boards, must be sought in the correct feelings and sound judgment of the individual medical practitioner. In this respect, with the exception of the power of certifying the qualification to the public, there is, perhaps, little ground for complaint, since most of those who are engaged in active practice, have either legally qualified themselves for the treatment of both medical and surgical cases, by taking out diplomas or licenses from two or more of the incorporate bodies, or have actually done so by marking out for themselves a fuller and more effective course of study. It is now rare to meet with a physician ignorant of the principles of surgery, a surgeon unacquainted with practical medicine, or a general practitioner, who is not sufficiently versed, both in medicine and surgery, to enable him to undertake the management and responsibility of such cases of disease as daily come before him. Exceptions no doubt do occur, but these we would fain hope are few, and probably confined to those high in office, in some of the irresponsible medical incorporations. The due legal regulation of this matter, however, is of vast importance, and the correcting of the deficiencies of the authorized schools of instruction, and the making up for the shortcomings of the collegiate and corporate bodies, ought no longer to be left to the immature perceptions of the student. If he is enabled to work out the remedy for himself, and when his education is presumed and certified to be completed, his own perception of its defects leads him to take steps for acquiring that knowledge elsewhere, which his university or college neither does nor perhaps can supply him with; he is, thereby, subjected to an increased expenditure both of time and funds, and compelled to contribute to another institution, in order to obtain a legal qualification to make use of that knowledge which his own unassisted efforts have enabled him to attain. The license of the Apothecaries' Company, it is true, confers the right of practising medicine and pharmacy, but it gives no

standing to the person who possesses it, confers no claim upon the estimation of the public. Accordingly the general practitioner is compelled to work out an additional period of the most precious season of his life, to enable him to come before another board. After wasting some five or more years in compounding pills and potions, attending sundry lectures, and complying with the other requirements of the hall, in order that he may possess the power of doing that by license which every druggist's apprentice is permitted to do without license; he has then to supply the deficiencies of his first instructors, and to establish a claim to that character, which they cannot bestow by complying with the requirements of the college. Here the time is possibly profitably spent in the acquisition of knowledge, which will be useful to him in after life, but, in the first instance, it has but too often been miserably thrown away; while the tax on his purse is levied alike by both institutions,—by the one for conferring privileges without reputation and knowledge to benefit by them; by the other for conferring knowledge and reputation without privilege to employ them. This state of things ought no longer to be suffered to exist. A sufficient qualification should be required of every person entering the portal of the profession, previous to his receiving license to practise; and whether he intend to practise the whole, or to devote himself exclusively to one particular branch, such an amount of knowledge as is necessary to enable him to do so with safety to those who may entrust themselves to his care, should be required at his hands. The minimum of this amount should be fixed by the requirements of the public service, and the highest qualification which can possibly be attained, without limiting too much the numbers of those who can reach the standard of excellence required, should be arrived at.

No other limit should be placed to the knowledge of the candidate, than that which is necessary to keep up the supply of practitioners in due proportion to the demand for them; and the standard should be the highest which is compatible with the providing of a sufficient number of qualified persons for the supply of the public wants.

The next anniversary meeting of the Provincial Medical and Surgical Association will take place at York, on the 4th and 5th of August. We have every reason to anticipate a numerous attendance of the members. Questions of high importance to the medical practitioner will then be discussed, and under the present aspect of medical affairs, it is desirable that any conclusions which may be

adopted should receive the sanction of a large portion of the Association.

REVIEWS.

The Surgeon's Vade Mecum. By ROBERT DRUITT. Second Edition. Renshaw, London, 1841. 8vo. pp. 524.

ONE of the chief characteristics of the present day is an unceasing effort to economize time and labour. In practical medicine, little, we suspect, can be effected by an adoption of the railroad principle, but in medical literature much benefit is derived from works which, in a very condensed and convenient form, give a faithful account of most of the facts and principles on which medical science is founded.

For many years, the only complete treatise on surgery in the hands of the student or practitioner, has been the uncouth and ill-digested dictionary of Mr. Cooper. Something less prolix and tiresome was a great desideratum; some work which, while it furnished a short and complete account of modern surgery, was free from the manifold defects of Mr. Cooper's ponderous volume. Such a work we are glad to recognize in the *Vade Mecum* of Mr. Drutt; it is an excellent epitome of surgery, and may be consulted with advantage by all ranks of the profession. The present edition contains an hundred additional pages, and is illustrated with fifty neat wood engravings.

A New Operation for the Cure of Amaurosis, Impaired Vision and Shortsightedness. By JAMES J. ADAMS. Churchill, London, 1841. pp. 50.

THIS pamphlet contains an account of certain affections of the visual organ, which Mr. Adams proposes to remedy by division and extensive separation of one, two, or more recti muscles. In support of his opinions, Mr. Adams cites a very respectable number of cases. The chief form of impaired vision to which the author applies his method of operating, is muscular amaurosis, or that species depending on muscular action, and not on any disease or change of structure in the nerve.

It is characterized, on the one hand, by a perfect transparency of the humours of the eye, and a healthy condition of all its structures; on the other hand, by the absence of those signs which render the presence of permanent diseases or changes in the brain or optic nerve evident and certain. The complicated forms of muscular amaurosis, however, will only be detected by the

most careful investigation of the past history and present symptoms of the case; for, though certain changes in the structures of the globe of the eye, and of its transparent contents, may appear to the surgeon to be sufficient to explain the cause of the loss of sight, still they may not always be sufficient, in themselves, completely to deprive the patient of the power of seeing, if the nerve be capable of performing its functions.

In the simple forms of the disease, we may have some slight variations from the natural condition of the pupil; the iris may be more dilated and less active than natural, and the colour of the pupil may be somewhat less brilliant than usual, though not to that degree which is recognized as a turbidity of the humours. The position of one eye, and generally of the one most affected, may be slightly diverged so as to constitute a peculiar stare, but not a squint; also, if the eye least affected be closed, the affected one may become violently inverted, which will be increased by any effort on the part of the patient to straighten it by looking directly forwards, though he may have perfect power to direct the eye to the outer canthus if he wills it; again, if both eyes be open, and an object be held directly in front of the root of the nose, one eye may be apparently attracted towards the object, or turned towards its inner canthus, while the other will be repelled or moved towards its external canthus, so that the patient may be found to have scarcely any power over the equal convergence of both eyes.

These symptoms however, may be all absent, and the eye present its natural appearances.

In some cases the patient may, while following some ordinary occupation, or on his first rising in the morning, find himself blind or nearly so; if one eye only be affected, he will feel conscious of seeing objects on the affected side less perfectly than on the opposite; this condition may rapidly pass away, or continue for several hours, then gradually cease or lessen; but, on the first active exertion or application of the eye, the patient finds that he cannot see small objects for more than a few minutes at a time before they appear misty and confused; the progress of the affection may be rapid or slow. In some instances the first failure of the sight is attended by a bright yellow or red spot, or, indeed, a mixture of them both; the yellow being encircled by the red.

If the disease commence gradually in both eyes, the patient at first complains of the eyes feeling weak and soon fatigued after moderate exertions; this may continue without any particular attention being paid to it, till at last the patient finds that on waking in the morning the sight is very dim, and that in the daytime it has become

much worse than it used to be, that distant objects are less distinct, and near objects cannot be viewed for so long a time without a dimness and confusion of vision being produced; he is therefore compelled to give up, for many hours, or for the remainder of the day, the employment of his eyes on the subject which causes the dimness. When the disease has advanced to this state, he, in all probability, cannot see to read a single line of print by candlelight; should it have commenced gradually in one eye, the inconvenience will be somewhat less.

The irregular form of the disease commences by attacks like those already described, which last but for a short time, and seem only to return when the patient is much out of health, or has been over-using his eyes: it may affect either eye by turns, and continue to visit the patient through life.

In severe forms of the complaint certain luminous appearances may be present,—as numerous red or bright stars, or a single yellow bright spot, attended by red flashes of light, on closing the eye-lids in the act of winking; one of Mr. Adams's patients stated that she had seen the appearance of a large bright yellow spot, attended by flashes of red light before each eye, every morning during the last past fifteen or sixteen years.

The other symptoms which may be expected to occur, in a severe case of muscular amaurosis, are a sense of weight, occasionally amounting to severe pain across the forehead; an aching and shooting sensation through the brows and temples, and in a few instances a dull pain about the occiput, with general headache and giddiness.

In the milder forms, we may often find only an aching about the eye and brow after bodily fatigue, or moderate exertion of the eyes on minute objects, attended by more or less lachrymation.

With respect to the exciting causes of this affection, Mr. Adams has observed that its first attack is generally preceded by fever, rheumatism, some unusual debility, or by a protracted inflammation of the eyes; and, in a few instances, by injury to the globe of the eye: but, occasionally, no apparent cause can be assigned.

"As some forms of this disease are not altogether incurable by medicine, but are often greatly mitigated, or sometimes perfectly cured, the cases adapted for operation are only those which have proved otherwise incurable. The *modus operandi* and its effects, Mr. Adams will describe in another memoir. It is founded on his belief, that muscular amaurosis depends on the bending or partial folding and compression of the optic nerve, caused by the shortening and thickening of the recti muscles during a state of morbid con-

traction," which may be attributed to an affection of the third and sixth nerve, probably at or near to their origins.

ROYAL BERKSHIRE HOSPITAL.

(Practice of Mr. F. A. BULLEY.)

ENCYSTED TUMOUR OF THE BREAST REMOVED BY ABSORPTION.

JANE NEW, *æt.* 52, was admitted into the hospital, October 13th, on account of an encysted tumour over the upper and inner part of the left mamma. It was of about the size of a small hen's egg, of a scirrhus hardness, and was perfectly moveable to some distance in all directions. The integument covering it was of a natural colour, and was not at all involved in the disease. She had first noticed it when about the size of a horse bean, and she thought it arose in consequence of a blow given to her by her husband. She had never felt any considerable pain in it till within the last three or four months, during which period she had suffered from gastro-enteritis of a chronic character which had weakened her very much. She now suffers greatly from diarrhœa. Opiates were ordered with a view to relieve this state of the system, and it was determined in consultation to remove the disease by operation, as soon as her state of health would permit of its being safely done.

16. Tumour continues in the same state without any particular pain. A smaller opening was observed this morning, through which exuded a drop of transparent viscid fluid. Diarrhœa continues with fever, increased at night.

20. The tumour, from being perfectly moveable in the parts about, and circumscribed in extent, now seems to have diffused itself in the cellular membrane, and to have become blended with the surrounding tissues. It was now immovable, and the integuments over it had assumed a reddened, inflamed appearance. Great pain on pressure, and at all times she complained of a sensation of great heat and fulness in the part. No fluctuation in the tumour. Her general health is perceptibly influenced by the disease, her appearance being much altered. Diarrhœa and fever continue. *Per. usu opiat.*

30. The pain and inflammation having greatly increased, it was deemed expedient to puncture the swelling, and about half an ounce of thick sebaceous fluid mixed with pus was squeezed out. A bread and water poultice to be applied.

Nov. 1. The tumour having ceased to discharge spontaneously, and not being much diminished in size, although the inflammation had in a great measure subsided, I pressed out of it with considerable force a large quantity of the same kind of fluid, only with more pus than was evacuated when the incision was made. Nothing but the cyst now remained. Her general health had become improved. Cretaceous mixture with tinct. kino.

9. The hardness occasioned by the remaining cyst has much diminished. There is a very slight discharge on pressure. The aperture is healing. To continue the poultice. Diarrhœa diminishing.

14. Her general health has become quite re-

stored. The hardness occasioned by the cyst has entirely disappeared, and the wound of the incision has almost healed; she was, therefore, discharged from the hospital. Ten days afterwards she called as an out-patient, and on examination I could find no vestige of her complaint.

REMARKS.—Perhaps the point of greatest practical importance in the preceding case was the difficulty of distinguishing between enlarged sebaceous follicle and true scirrhus in its early stage. I must confess, that from its stony hardness, I thought the latter was the nature of the disease, and I feared that when it had become inflamed and diffused, I had allowed the time to pass, when an operation might have removed the complaint. However, the nature of the discharged fluid at once set my mind at rest on this head, and I was convinced that the disease was not of a cancerous nature, but only a morbid enlargement of a sebaceous follicle, induced, probably, at first by the blow, and afterwards increased and brought into an inflammatory condition by the gastro-enteritic affection, under which she had suffered for some time prior to its assuming an active state. Probably this same condition of the system might afterwards favour the absorption of the cyst, but this is merely conjectural on my part. Perhaps, on the other hand, the occasional irritation caused by the tumour might have kept up the disorder of the system, and the gastro-enteritic symptoms under which she laboured, and the cessation of these symptoms, when the tumour became absorbed, would favour this view of the case; but in whichever way these two causes might have acted and reacted on each other, I believe the entire absorption of the cyst of an enlarged sebaceous follicle to be extremely rare: I have, therefore, thought it worth while to record it.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

(Continued from p. 271.)

REPORT OF THE POOR-LAW COMMITTEE, 1840.

(Published by order of the Council.)

§ 23. We have thus glanced at the principal considerations urged by the commissioners, in favour or palliation of the tender-system; and also shown the inconsistency and irregularity of their arrangements with regard to it.

The truth is, that without acting upon any well-defined and acknowledged principle, they excepted certain unions from the operation of pecuniary competition, and constituted themselves, or the guardians, judges of the rate of medical remuneration; whilst in other unions, when the tenders, which they had invited, exceeded their own estimate, they compelled a reduction of the offers, by threatening to introduce strangers.* Their practice thus confuted both their theory and their professions, and was condemned by the parliamentary committee, in the following terms.† "If offers have been made, and appointments accepted, by the resident surgeons, at a rate below a reasonable amount of remuneration, under an apprehension that strangers

* They not unfrequently offered the sum specified in the lowest tender to the best qualified candidate.

† Parliamentary Report, 1838. P. 24.

to the neighbourhood might be introduced, and that a part of their private practice would be lost, together with their attendance on the poor, your committee think that this is a circumstance to be regretted, and they advise the adoption of some different mode of appointment."

Nor were there wanting gentlemen connected with Somerset House, who deprecated such proceedings. Dr. Kay honestly stated, ^(5115.) "I have always urged in my district that the system of contract by tender should not be adopted, because I have thought it desirable that we should have the services of the most respectable medical practitioners." We may also refer to the abandonment of tenders by Mr. Earle, noticed in a previous section of this report, (19.)

§ 24. The effects of pecuniary competition, both upon the professional character, and the welfare of the poor, were described by most of the medical witnesses in terms of deep regret and severe reprehension.

Mr. Ceely ⁽¹⁵⁴¹¹⁾ stated, "that such a mode of election had the effect of injuring the character of the medical practitioner, lessening his respectability, and lowering his moral feelings, and must ultimately have a very bad operation upon the welfare of the poor in sickness." ^(15417.) "The competition, generally speaking, is an unfair one; it is impossible for those who encourage it to form an estimate of the completion of the contract; there is frequently a competition between persons of very dissimilar attainments, knowledge, and experience; and, moreover, it is frequently the case that those who would wish for the contract are the least able to perform it. Pecuniary competition for medical services is of a very questionable character. I conceive that an analogy will not subsist between that and other competition, because you cannot discover whether the contract is performed, and much must be left to the integrity and humanity of the individual, which you cannot put into the contract."

Dr. Elliottson also ⁽¹⁵⁸⁸⁵⁾ said, "I have spoken against it all my life, and those who have known others comply with it, have shaken their heads with disgust." Sir A. Cooper in like manner ⁽¹⁶⁰⁴⁹⁾ stated his opinion, "that there could be nothing more horrible and more degrading to the profession, or more injurious to the poor."

The objections to appointment by tender do not apply to an honourable competition between all those gentlemen whose moral and intellectual qualifications entitle them to hold the office in question. The medical witnesses disclaimed any desire to prevent the guardians selecting their officers fairly from amongst a number of such persons ⁽¹⁵⁴¹⁹⁾. Thus one replied ⁽¹⁵⁴²⁸⁾, "I am not opposed to a competition of character and skill;" and another stated, ^(14874.) that he was not averse to a fair and open competition, "but it ought to be a competition of talent, skill, and humanity, not one of pounds, shillings, and pence, in such a momentous business as the lives of the poor." These quotations would furnish an adequate reply to Mr. Gulson's coarse remark, that the objection of medical men to giving in tenders was, that "they did not like to bid one against another." ^(1702.)

We cannot in this place avoid quoting some extremely apposite remarks from Dr. Yelloly's valuable pamphlet, and we do so the more readily,

as the parliamentary committee was, from unavoidable circumstances, deprived of the advantage of that gentleman's evidence. "The principle of competition, and the contracts to which it gives rise, as far as medical affairs are concerned, is unsafe and inexpedient; where the question relates to articles of known and palpable character, proposals and contracts afford the means of obtaining them at the lowest possible rate, because the honest fulfilment of the contract is capable of being ascertained . . . but in all cases where it is not a common operation which is required, or an article of obvious character which is to be provided, where it is the intellect, the spark of divine essence, which we wish to enlist in our service, it would be considered as altogether out of the question to look to the lowest terms, instead of selecting a person on whose judgment and assiduity dependence can be placed for efficient assistance. Would any one make competition and low charges ingredients in his choice of a solicitor who is to be entrusted with the management of important affairs? . . .

"If a tradesman were to offer to provide an article of known value at a rate at which it could not be afforded, there would at once appear to be something underhand and suspicious in the transaction; nay, the proposition would be viewed as offensive and disreputable; . . . and yet the parish surgeon is required either to accept a sum which the least consideration or inquiry will evince to be totally inadequate, or he is desired to give in his proposals, which he knows must be within certain prescribed limits, or he is threatened with the introduction of some new practitioner. . . .

"The poor-law commissioners consider the principle of competition as strictly and to the fullest extent applicable to the supply of drugs for the parish poor; but . . . this can only be the case, when means are afforded of judging whether such supply is correctly provided. If an hospital, or a dispensary, purchase drugs by competition, they have proper officers to see that the articles furnished are good. In this case, and under such circumstances, the principle of competition strictly and fully applies; but it is not so with parochial attendance, where there is no check, and can be none, on the medical man as to the quantity or quality of the medicines dispensed by him. . . . Inadequate terms of remuneration give a lower rank to parish employment than it ought to possess, and often prevent the more established and best estimated practitioners of a district from wishing to have any share in it."

The last-mentioned effect of inadequate remuneration was illustrated by another witness. Mr. J. Ellison (not a medical man) remarked ⁽¹⁵⁴⁰⁵⁾ that when the salary was reduced, (under the old law,) "only one medical man in the district would at last accept the office." . . . It became a bye-word, and the "paupers themselves" at last complained that "there was no virtue in the physic."

§ 25. We now proceed to show the rate to which the commissioners and guardians have reduced medical remuneration by their parsimonious measures.

Mr. Farr calculated, ⁽¹⁵⁸¹⁸⁾ from the returns made to the parliamentary committee, that "the amount of remuneration in the metropolitan unions was on the average 1s. 5½d. per case; in Lincoln-

shire, 5s. 4d. per case; in Dorsetshire, 3s. 6d.; in Devonshire, 3s. 5d.; in Cheshire and Lancashire, 6s. 1½d.; in Wilts, 1s. 11½d.; and taking the average of these counties, 3s. 3½d. per case.¹⁵⁸¹¹ He first proved how totally inadequate this was, by a calculation of the prime cost of medicines, which cannot be properly supplied to pauper patients under 2s. 6d. per case. (15811).

In the metropolitan districts, therefore, the sum paid to the medical officers was 1s. per case less than would suffice to supply the patients with drugs alone; whilst in the country districts, on the average, only 9d. was allowed for the time and labour of the medical attendant, and the cost of journeys.

In some counties, indeed, the remuneration was absolutely below the cost of medicines.

That 2s. 6d. per case is barely sufficient to provide drugs for the poor, was the opinion of other witnesses. Mr. Ceely said, (15485) "I should be sorry to furnish all the medicines for the Aylesbury union at 2s. 6d. per case." Mr. Farr stated, (on the authority of Dr. Bigsby's pamphlet,) that "the cost of medicines in twenty-two dispensaries was 2s. 1½d. per case. The apothecaries supplied the navy with *galenicals*, at 2s. 3½d. per head," equivalent to about 3s. 6d. per case; the addition of *chemicals* would, probably, raise it to about 4s. per case. It was shown that the cost in many hospitals and infirmaries was much higher; for example, in St. George's Hospital it averaged 5s. 2½d. per case, for all the patients, in the years 1834 and 1835, but the "average of nine county hospitals, including both *in* and *out* patients, was 3s. 7d. per case," (15803) and, according to the Rev. C. Oxenden's "Statistical Report of Provincial Hospitals," the average cost of each patient in drugs, leeches, wine, spirits, and surgical instruments, was 3s. 11½d.; the expense in drugs and leeches only, 2s. 5½d. per case.*

Upon the whole, then, we are quite disposed to agree with Mr. Farr, (15811) that "as the result of a careful examination of all the returns given in—medicines, leeches, bottles, bandages, and medical appliances, of every kind, would amount to 5s. per case, on cases of all descriptions, such as they occur in private practice, of perhaps fifteen or twenty days' duration; and that, with the greatest economy, applying Mr. Chadwick's dietetic principles to the *Materia Medica*, the cost of drugs for medical cases of twenty-three days' duration, cannot be fixed at a lower sum than 2s. 6d.; the patients could not be supplied at 2s. 6d., with the same medicines precisely as are supplied to the rich; but I can conceive, that by various expedients, without withholding essential drugs from the sick poor, the cost of medicines may be reduced to 2s. 6d."

These calculations may suffice to show that the ordinary rate of union salaries must operate as a constant inducement to the medical contractor to withhold from the pauper patients a necessary supply of medicines, especially those of a more expensive kind; "for example, quinine, sarsaparilla, castor oil, tinctures, and aromatics. He has, therefore, the continual temptation before him to make cheap substitutes; and as for leeches, it cannot be expected that the practitioner will incur

the heavy expense of providing them (if at all) in the adequate number and frequency."

"And thus the methods he must adopt, to make his contract answer, risk an unfavourable effect, not only on his own character and feelings, but also on his pupils, by showing that there is *one set* of medicines and kind of attendance in operation for the rich, another for such as are dependent. Dr. Yelloly also mentioned an instance of the insufficiency of parochial payments to provide even drugs for the poor. "A large parish in West Ham union, containing 4,000 inhabitants, was previously provided with drugs at the expense of the parish, a dispenser engaged at a small salary to make them up, and attendance on the patients given by the resident surgeon gratuitously; but yet, though the expense of the drugs alone amounted to near 70l. per annum, the guardians felt themselves justified in contracting for drugs and attendance together, at 50l. per annum!"

One of the assistant commissioners, Mr. Power, also describes well the necessary consequences of inadequate remuneration.* "The low scale of remuneration given, in proportion to the services exacted, has formed, in some instances, the excuse for defective attendance, and the supply of a *worse description of drugs*, than could safely be applied to the private patient," and "has made it difficult to the medical man, without great sacrifice, to attend properly on the parish patients."

Dr. Thompson, in his valuable evidence respecting the adulteration of drugs, proved that "if a medical practitioner were induced, by the low terms of his contract, to purchase his drugs at the cheapest market, he would have no security (15572) against their adulteration; and (15578) although respectable practitioners would even, at a loss to themselves, supply good and proper medicines; yet, when an inferior set of men are driven to compete for situations, it would be their direct interest to purchase cheap drugs." (15579.)

Other medical witnesses confirmed Dr. Thompson's hypothesis, by referring to facts which occurred within their own observation, (14895, 14896, 15591.)

But this species of evidence was for the most part kept in the background, owing to the arrangement before mentioned.

The chairman of the committee was desirous of extorting admissions, that as the effect of inefficient treatment would be to protract or aggravate diseases, it must be the interest as well as the duty of the medical attendant to provide properly for the cure of any patient, (14942 et seq.) but the witnesses proved that a medical officer, if "determined to get through his duties at the least possible expense and trouble, has the means of so doing by administering cheap and inefficient remedies, without its being discovered either by the patients, the guardians, or the public; that it is in the power of the practitioner to neglect his duties, to a very great extent, perhaps to produce a prolongation of suffering, and very frequently loss of life, without his delinquencies being detected by unprofessional observers;" and therefore, that a person of this description might, for a time, fancy it to be his *interest* to deprive the poor of the necessary remedies.

§ 26. The inadequacy of the remuneration was,

* This calculation is based on the returns from 87 hospitals; in which, during one year, 23,180 in-patients and 67,346 out-patients were treated.

* Second Annual Report, p. 267.

however, proved otherwise than by a reference to the cost of drugs.

Mr. Farr showed that the cost of medical attendance upon prisoners in the English jails was 13s. 7d. per case, and in the Irish jails still higher. We might hence conclude, that the State values the life and health of a felon at four times that of a pauper, since the remuneration of prison surgeons bears that proportion to the payment of union surgeons. If the readiness of the latter to accept office on inadequate terms be the cause, (as Mr. Gulson intimates ¹⁸⁷⁹) of so extraordinary a discrepancy, the salaries for prisons might, with equal propriety, be reduced by professional competition to the same level; and why not? Simply because the ill effects of such a course had been previously discovered.* "The medical attendance on prisons was formerly conducted very much with a view to cheapness, but when an enactment was made, which showed that it was the wish of the legislature to have efficient services, and pay for them adequately, the visiting magistrates raised the terms of remuneration to a fair extent, and have by this means pretty generally now rendered the appointment of surgeons to prisons one that the most respectable members of the profession feel desirous of obtaining." This reform was described by Mr. Farr (¹⁵⁸⁴¹) in the following terms:—

"The consequence of neglecting the prisoners in jails has been made too frequently evident, to allow any parties to overlook the fact. Jail fevers and other diseases have often attracted the attention of government, and the number of deaths occurring in the jails are recorded and known to everybody; deaths occurring over a scattered district, and at isolated points, are often forgotten, and make no general impression; and again, on the other hand, the magistrates appoint the surgeon to the jails, and the magistrates are not so difficult to deal with as the old overseers were, and they are rather more scrupulous."

"The overseers (and he might have added the *guardians*) attended more to the amount of the salary than to the efficiency with which the duty was performed."

Mr. Power, the assistant-commissioner, candidly confessed that "he did not see any reason why, with reference to those parties who are provided with medical attendance by the public, any distinction should exist as to the expense between those who are provided for by the government and those by the parish." (⁴²⁷⁴)

We have hitherto estimated the standard of union medical salaries by a reference to the number of cases attended, but the real cost per case depends of course upon the average duration of the attacks of illness. In different localities, and in different types of disease, no less than under different systems of bestowing relief, it is evident that the average duration of cases must vary greatly. The calculation per case is therefore not always an accurate index of the rate of remuneration; perhaps a more satisfactory method of demonstrating the inadequacy of parochial payment was suggested by Mr. Farr, (¹⁵⁸⁰⁷) viz. by ascertaining the cost of one patient sick for a year. It appears from his evidence, (¹⁵⁸⁰⁹) that for a pauper constantly sick, or for a succession of single cases, the average cost was 2l. 13s. per

* Dr. Yelloly.

annum (according to the parliamentary returns). Now, by the army regulations, country surgeons, in the absence of a military surgeon, are paid at the rate of 4s. 4d. per annum per man for the medical care of the troops, except where the number is under 50, when the rate is increased to 6s. per head. (¹⁵⁸¹³). Taking the number constantly sick at 4 per cent.,* the payment for each sick soldier per annum would be either 5l. 8s. 4d. or 7l. 10s., according to the numbers; the lowest of these rates being more than double the amount of pauper medical remuneration, without taking into account the expense and loss of time caused by journeys to distant parishes. (¹⁵⁸¹³)

§ 27. The remuneration under the new system was asserted by Mr. Gulson to be relatively greater than before, owing to the reduction of medical pauperism. He supposed this to be the case, "because only one-half of the people that used to be attended are so now;" (¹⁷¹⁵) the remainder provide themselves with medical attendance.

Mr. Gulson was never more mistaken. An unprejudiced inquiry would have convinced him, that gratuitous aid supplied the deficiency of parochial charity, and that the medical paupers continued so still, though they were dignified by the name of independent labourers, because the parish no longer bore their expenses.

Even those who professed a wish to pay for medical advice found themselves unable to do so, and the losses sustained by attending on the labouring classes were much increased.

The disparity of payment observed in various unions was very singular, and (as Mr. Farr stated) could not be explained by anything in the returns. In Devonshire (¹⁵⁷⁸⁶) the payment per case ranged from 1s. 6d. to 8s. and 10s., apparently without reference to area or distance. Thus, also, in the Wycombe union, Bucks, the remuneration per case varied from 2s. to 2s. 9d.; whilst in the Bridge union in Kent it was 10s. per case per quarter, so that, in cases lasting a year, it would amount to 2l. (¹⁴⁸⁹⁷). Neither commissioners nor guardians appear to have proceeded on any fixed principle in determining the payment per case, but in order to guard against the consequences of too liberal an estimate, they almost uniformly limited the number of cases to be paid for; thus they secured themselves by a maximum of the cost, whilst they left the medical officer with a prospect of loss, either by their effecting a reduction in the number of his cases below the proposed maximum, or by granting orders to a greater number of sick than they meant to pay him for.

The gross unfairness of such an arrangement was shown by some of the medical witnesses, to whose evidence I beg to refer.† The point is too obvious to require further notice in this report.

MEDICAL REFORM.

SUBSTANCE OF A LETTER FROM MR. H. W. RUMSEY, TO DR. R. D. THOMSON, SECRETARY TO THE CONFERENCE.

As I have been and still am unable to be present at the meetings of the Conference, and have

* M'Culloch's "Vital Statistics."

† Vide 14902-6, where in one parish the remuneration was reduced from 10l. to 9l. 4s. by this arrangement. Vide also Aylesbury Union. Vide also 14766 et seq.

no prospect of being more at leisure, I beg to announce my resignation of the office of Delegate of the Gloucestershire Medical Association; and I take this opportunity of addressing to you, as Secretary to the Conference, a few remarks which may, if you think proper, be read at the next meeting.

In the support which the majority of the delegates gave to Mr. Hawes's bill, I was not at all disposed to concur; nor do I think that even the "principles" of that measure met with the approbation of the profession generally. However, as it has been withdrawn, and as certain other circumstances have occurred which I think rather alter the aspect of the Medical Reform question, it appears to me that moderate and reasonable reformers should now be prepared to take another course.

The principal objects for which we all in common contend, are, I apprehend, an improved organization of the profession on the representative principle, and an uniform qualification for the class of general practitioners.

These objects have hitherto been attempted by Messrs. Hawes, Warburton, and Wakley, without any recognition of the corporate medical institutions, and, in my humble opinion, without a due regard to the distinctions, grades, and divisions, which exist in the practice of the healing art.

The first grand object will be attained when every physician and surgeon shall be admitted to the privilege of representation in their respective colleges (of that part of the kingdom in which they reside).

The London College of Physicians professes to be ready to extend the *full* privileges of membership to all the physicians of England. If this reform be effected, according to the plan lately promulgated, I conceive that we have nothing further to propose with regard to that branch of the profession. Physicians are surely best qualified to manage the affairs of the College of Physicians.

On the other hand, the Apothecaries' Company has proposed that its licentiates should be represented in the court of assistants. Whether many are likely to avail themselves of the intended honour (?) is another question; but in fairness we must admit, that the company intend the alteration as a concession to professional demands. I consider, therefore, that we have nothing to do with the Apothecaries' Company, further than to endeavour to confine it to its original and legitimate province, the superintendence of pharmacy; though it might be advisable to admit it to a share in the formation of a licensing board.

The only corporation which now presents a serious impediment to the adoption of the representative form of government is the College of Surgeons.

I would therefore earnestly recommend that all our efforts be concentrated to obtain an amended constitution of that body. If the excellent and liberal recommendations of Mr. Aston Key were warmly supported by the members at large, and urged both upon the government and legislature, I believe the self-elected council must at no distant period yield to the force of public opinion.

The modification I would suggest is as follows:—Every member of the college, of a certain standing, (say five or ten years,) should possess a vote in the election of the council, provided he be not a mem-

ber of either of the other bodies; i.e. College of Physicians or Society of Apothecaries. And with regard to that large body of practitioners who are both members of the College of Surgeons, and Licentiates of the Hall, these ought to have the right of choosing to which of the two bodies they will attach themselves: if to the hall, they could not expect to retain elective privileges in the college: if to the latter, they ought not to be permitted to sell or even to charge for, although they might continue to supply, their patients with medicines. The separation of pharmacy from medical practice should be promoted by every practicable expedient.

With respect to the qualification of councillors of the college, I think that ought to remain as at present. The governing body in the College of Surgeons should consist of those who devote their whole attention to surgery. It does not follow that the accoucheur or general practitioner should be eligible to a seat in the council, merely because he might possess the right of voting in the college.

The creation of a fourth body in the profession, a college of midwifery, is, I think, a point worthy the deliberate consideration of the conference.

Neither of the other corporate bodies are suited to examine in that branch of medical practice, which is surely of sufficient importance, both with reference to the profession and to the community, to be regulated by its own board. All the members of such a college might be empowered to elect a council, provided they did not retain the right of voting in either of the other corporations; and the council might be composed of physicians and surgeon-accoucheurs in equal numbers.

The medical profession, like the other liberal arts and sciences, has already benefited by the application of the well-known principle of "division of labour." Instead of confounding distinctions and divisions, we ought to promote and regulate them.

With respect to the proposition which has been made for elevating the Society of Apothecaries into a college of pharmacy, I confess my decided objection to it.

The practice of pharmacy is necessarily more or less connected with the purchase and sale of medicines. A commercial or trading college is an anomaly, and ought not to meet with the slightest encouragement from members of a learned profession.

This naturally leads me to speak of the position of the chemists and druggists,—an active and enterprising body of men, whose interests ought, if possible, to be united with our own. I see no means of attaining this desirable co-operation, but through the Apothecaries' Company. Embody the druggists in that corporation—give them a share in the control of pharmaceutical practice—do not interfere with their conventional privileges, (such at least as are useful to the community,)—and, I believe, they would assent to such restrictions as medical practitioners might require for their own protection, whilst they could scarcely oppose a measure which would secure to the public the much-needed provision of licensed and thoroughly-qualified pharmacists.

Having now stated my views as to organization, I will make a brief remark or two on "qualification."

The necessity for a uniform qualification in all branches of medical practice (accompanied by a

license to exercise them) seems to be generally admitted. The only point in dispute is, whether this qualification should be a "minimum" required of all who enter the profession before obtaining their "summos honores," or a "maximum," a test imposed upon all who have completed their preparations for practice, and who have taken their ultimate grades, that is, on all the members of the Colleges of Physicians and Surgeons. I do not hesitate to decide for the former. The reasons appear to me too obvious to need a recapitulation, and are sufficient of themselves to confirm me in opposition to Mr. Hawes's measure, which is based on the latter.

The "minimum" qualification ought, however, to be sufficient to afford the public a protection against ignorant and half-educated practitioners.

How the board, which should confer this uniform "minimum" qualification should be constituted, demands further consideration; I believe the mode proposed in the resolutions of the Gloucestershire Association, (Prov. Journal, No. 23.) would be the best.

Lastly, in order to provide some general superintendence of medical affairs,—a board, equivalent to Mr. Hawes's senate, might be formed in each metropolis, the members being selected from, and appointed by, the councils of the several reformed corporate bodies.

Gloucester, June 15, 1841.

FOREIGN MEDICAL LITERATURE.

CASE OF ACUTE ENTERITIS TERMINATING IN A SLOUGHING OF A PORTION OF THE COLON.

By DANIEL COATE, M.D.

THE subject of the present article, Robert White, a native of Ireland, about 36 years of age, and with a robust constitution, was attacked with dysentery in the month of October last. I visited him twice only while labouring under this form of the disease; he resided at a distance of eighteen miles from me. I treated him principally with calomel and opium, with occasional laxatives; it is unnecessary to dwell upon the treatment; suffice it to say, the attack was one of the severest grade, and the treatment as judicious as I could employ under his circumstances, which were indigent in the extreme. From the period of my last visit, (which was on the 10th,) till the 4th of November, I received no account from my patient, at which time I was requested to visit him again. My attention was first directed to an extraordinary tumor protruding from the anus, and about the size of a large fist; on careful examination, it proved to be a portion of the large intestine "inverted," gangrenous in spots; this condition had existed for three or four days at this time. Having washed the portion of the intestine, I proceeded to restore it, which by steady and pretty firm pressure I succeeded in effecting, pushing it as far up the rectum as I could reach, and ordering a T bandage to be firmly applied, in order, if possible, to prevent its descending again.

I was now shown a "something" which truly surprised me, when I was informed that it had been discharged per anum by this patient; it had been kept six days in a trough containing water.

I brought the substance away with me to my residence, after having stated to my patient and his friends the nature of his case, so much of it at least as was needful for them to know.

On the most careful examination of this substance, I became well satisfied that it was a portion of the large intestine which had sloughed from the upper part of the colon. Its length was about ten inches, composed of all the coats of the intestines. Its situation in the alimentary track was easily discoverable, by the cæcum or caput coli and the appendix vermiformis, both of which were entire, not having undergone any decomposition, or at least sufficient to prevent them from being easily identified; ulceration in other parts had proceeded to a considerable extent. Upon inquiry and examination, I learned that the patient had passed one or two free stools daily; ate heartily of oat or Indian meal gruel; felt no pain or definable sensations of distress; his pulse was good; and he uttered a confidence truly incredible, that he would be restored to health and the society of his family, I have not had an opportunity of seeing White since the date of my last mentioned visit, but have reason to be assured that he is alive, and well enough to be pursuing his ordinary occupation as a labourer.

Feb. 2, 1841.

EXCISION OF A PORTION OF THE INFERIOR MAXILLARY BONE.

By H. H. TOLAND, M.D.

August 10, 1835. Toby, a male slave, ætat. 9 years, the property of E. P——, Esq., was placed under my care on account of osteo-sarcoma of the inferior maxillary bone. The disease commenced in 1833, and increased regularly until I saw him. The enlargement extended from the neck of the bone on the left side to the symphysis, and was so much increased in size as to be in contact with that of the opposite side. The tongue was elevated and misplaced, and mastication and deglutition were performed with difficulty.

An operation being thought advisable, I performed it, in the presence of and by the assistance of some medical students, on the 13th of August. He was placed in the recumbent position, and an incision made from half an inch below the lobe of the ear to the corner of the mouth, dividing all the soft parts. They were then dissected from the diseased bone and turned down. The bone was next divided on the right side, but near the symphysis, with a small amputating saw, so that all the diseased mass might certainly be removed. It became necessary to expose the superior maxillary bone at its posterior and external portion, so as to have access at the point to which it was desirable to make the section. This being done, and the flap turned up and retained by an assistant, the neck of the bone was divided just anterior to the articulation with Hey's circular saw. Considerable difficulty attended this part of the operation, depending on the great and sudden enlargement of the angle. The diseased bone was then easily separated from the internal soft parts, and removed.

There were no vessels divided that required a ligature. The flaps were brought together and

closed by the interrupted suture and adhesive strips. Great exhaustion followed the operation, depending both on the violent exertions made by the patient, as well as the shock given to the nervous system by the pain, &c., consequent to such an operation.

For two days he was restless, complained of some pain in the head, pulse 160 and small. These symptoms, however, yielded to the administration of calomel and opium with laxatives.

On the fifth day the ligatures were removed, the wound having healed.

The portion of bone that remained was drawn inwards by the muscles with which it was connected, so that the teeth did not come in contact with those of the opposite jaw, which, after a few months, being incrustated with tartar, and the gums diseased, were extracted.

The diseased bone weighed half a pound, and was so soft that a probe could be passed through it in almost any direction.

Twelve days after the operation the boy was sent home, being almost well, and much less deformed than might be supposed, after losing so large a portion of the inferior maxillary bone.

He is now in good health, and as useful on the plantation as any one of his age.

Some surgeons recommend the carotid artery to be tied before commencing such an operation, lest hæmorrhage might be troublesome. In this case no vessel was divided that required a ligature; cold water with pressure being sufficient to arrest the flow of blood. Nor do I think it necessary in any operation, either upon the superior or inferior maxillary bones, the actual cautery being preferable in operations upon the former, and in those upon the latter, ligatures can always be applied without difficulty to the divided vessels, so as to control the hæmorrhage. The operation of putting a ligature on the common carotid is, I think, more dangerous than the excision of either the superior or inferior maxillary bones.—*Amer. Journal of Med. Sc., April 1841.*

SUCCESSFUL PARACENTESIS PERICARDII.

A CASE of paracentesis pericardii, which terminated successfully, is briefly related in the January number of the Austrian *Yahrbücher*. The patient was twenty-four years of age, and laboured under hydrops pectoris, with the greatest degree of dyspnoea. A small trochar was passed by Dr. Schuh through the edge of the pericardium, inside the internal mammary artery, and between the third and fourth ribs. Nothing came except a few drops of blood. A sound was now introduced for a few lines through the canula, and immediately struck on the pulsating vessels. In order to be more sure, the trochar was again introduced at the fourth intercostal space. A quantity of reddish serum was now slowly discharged. The patient was able to sleep a little on the following night; in two or three days the œdema of the feet began to disappear; the dyspnoea gradually became less distressing, and at the end of the month the patient was cured, not only of the effusion into the pericardium, but also of the dropsy of the chest.

In the March number of Hufland's *Journal* allusion is made to another case, in which the

pericardium was tapped successfully by Br. Karawajeff, of Kronstadt, in 1840.

MORTALITY OF FRENCH CONVICTS.

From a report on the galleys at Toulon, it would appear that the mortality of the convicts who are confined there is much less than might have been supposed. In 1838 and 1839, the mortality was 67 in 2,300; in 1840, it was 80 in 2,500, or about 3 per cent. per annum.

NOVEL SPECIES OF HERNIA.

In a communication from Dr. Adamson, inserted in the last number of the *Lancet*, the "junior members of the profession" are invited to meditate on a curious case of "inguinal hernia of both hemispheres." Prodigious!!!

NEW FELLOWS OF THE COLLEGE OF PHYSICIANS.

THE following gentlemen have been elected fellows of the college at the last annual meeting.

Dr. Blain, Dr. Cooper, Dr. C. Forbes, Dr. Goldie, Dr. M. Hall, Dr. Le Fevre, Dr. Robert Lee, Dr. Morrison, Dr. Macarthur, Dr. A. T. Thomson, and Dr. Yellooly.

COLLEGE OF SURGEONS.

ON Thursday, the 9th, George James Guthrie, Esq., was elected President, and Anthony White and John G. Andrews, Esqs., were elected Vice-presidents of the College for the ensuing year.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, July 2, 1841.—Charles Mc'Carthy, John Stratford Collins, Thomas Beale, George Codd, George F. Blacker, Harvey P. Haydon, Edward Vise, Thomas Guy, Frederick Wood, George B. Porteis, Richard R. Perry, Maurice Spotswood, Robert Buchanan, William George Tiley.

[The examinations at the College are now very strict; on Friday week seven candidates were rejected, on Monday five.]

TO CORRESPONDENTS.

Our Report of the Meeting of the Newton Branch arrived too late for insertion in the present number.

We request that in future all letters, communications, &c., may be addressed to Dr. Hennis Green, 58, Margaret-street, Cavendish-square.

Printed by THOMAS INOTSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and OWEN JOSIAS PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMSEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, July 9, 1841.

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COURSE OF CLINICAL LECTURES

ON

SURGICAL DISEASES,

DELIVERED AT THE HOSPITAL OF LA CHARITE'

BY PROFESSOR VELPEAU.

LECTURE VIII.

ON PURULENT ABSORPTION.

I SHALL continue, gentlemen, my series of cases, illustrative of this affection.

CASE III.—*Excision of the second metatarsal bone—purulent infiltration of the foot—jaundice—death on the 10th day—pus in all the veins and in the heart—numerous metastatic abscesses in other organs.*

— HENRICUS, nineteen years of age, about six months back, perceived a slight tumefaction at the root of the second toe of the right foot. The swelling gradually increased, and opened in about eight weeks; the bottom of the abscess was of a grayish colour, and the discharge of pus not very abundant. He was admitted into the hospital on the 4th of May, 1826. The edges of the sore now presented an unhealthy appearance, the skin around being of a livid, red colour. On passing in a probe, it was found that the first phalanx was carious, and the joint involved in the disease. The toe was amputated on the 7th, and an attempt was made to obtain union by the first intention. During the next three days the patient was a little feverish, but presented no serious symptom. On the 12th, the integuments on the dorsum of the foot were slightly inflamed, and the fever persisted. 13th. The patient's state was little altered; the dorsum of the foot very painful and red; on removing the dressings, it was observed that no union had taken place, and that a large collection of matter had formed under the integuments; it was opened, and several spoonfuls of pus discharged. 14th. Same general state; abundant discharge of pus, fetid, and of a greyish colour; the leg now swollen. 15th. The face had assumed a yellowish tinge; several of the metatarsal bones were found to be necrosed, and the integuments were extensively separated. 16th. The jaundice was evident; pulse regular; some perspiration; tongue pale; abdomen free from pain; respiratory sounds pure; a slight redness was remarked on the back of the left hand, with some fluctuation underneath. 17th. The slight traces of inflammation on the part observed yesterday, had disappeared, but the skin was more extensively detached, and more pus had evidently collected; the abscess was opened, and two ounces of extremely fetid pus were discharged; the abscess does not seem to communicate with the joints. The foot now discharged an enormous quantity of the same fetid pus, mixed with blood;

the lower part of the leg was considerably swollen, but not very painful; the patient was delirious during the night; pulse small and irregular; face anxious, respiration frequent. During the day the patient began to sink; the teeth were covered with a dark crust; at six o'clock in the evening the whole body became covered with perspiration; the pulse excessively small and irregular; the respiration embarrassed, and the patient died at half-past seven P.M.

Body examined fifteen hours after death.

Foot. The skin and cellular tissue are completely separated from the bones and tendons, the latter being black, and as it were macerated in the pus. All the bones are denuded. The adipose tissue round the ankle is infiltrated with yellowish serum, but there is no alteration of the bones beyond the scaphoid and cuboid. The plantar artery is lacerated, without presenting any appearance of gangrene, or being red or obliterated. The dorsal veins of the foot are red, and much thickened; they contain a quantity of greyish fluid pus; the saphenous veins are in the same state, as far up as the limits of the cutaneous inflammation; they contain pus up to the femoral vein; the deep-seated veins at the back of the leg are inflamed here and there, at the points corresponding to the inflamed portions of cellular tissue, and contain pus. At the calf and in different parts of the thigh, there are several small abscesses, in which are seen venous radicles, tumified, red, and containing pus. The arteries are either empty, or contain some of the elements of blood mixed with pus.

Arms. On the dorsal surface of the left hand, from the root of the middle and ring fingers, to the upper extremity of the metacarpus, there extends a large abscess, but the surrounding tissues are not, in the least, altered; a great number of smaller abscesses exist from this point as far as the axilla; some under the skin, others between the muscles; the internal bicipital groove is quite full of the same kind of matter. In these different abscesses there are large venous radicles, the walls of which are, here and there, thickened, and between them the veins are healthy, but filled with pus. The same condition of parts exists on the right side, although there had been no abscess here, during life. The condition of the right shoulder joint was particularly worthy of notice; externally there was not the slightest trace of alteration, but, on cutting it open, an ounce and a half of yellow grey fluid pus escaped; the synovial membrane was not injected, even its polished appearance remained intact. Finally, an abscess was discovered above the clavicle, and another behind the upper end of the sternum.

In the *cranium* nothing particular was found.

Thorax.—Cellular adhesions between the whole of the right lung and chest; this lung contains

two or three abscesses. There are fifteen to twenty abscesses near the surface of the left lung, varying from the size of a pea to that of a small egg: the surrounding tissue is perfectly healthy. There are, also, about three ounces of pus in the cavity of the left pleura. Heart small; the right auricle contains a spoonful of pus; in the left auricle the matter is intimately combined with the fibrinous clots; the latter extend as far as the division of the superior cava. All the other vessels in the chest were *completely empty*.

Abdomen.—Peritoneum healthy; mucous membrane of the stomach and intestines normal; the walls of the superior cava are lined with purulent matter. The aorta contains nothing but a small fibrinous clot, in which there are evident traces of pus. All the other organs of the body are healthy.

Remarks.—If we were inclined to attribute the production of so enormous a quantity of purulent matter to simple inflammation of the tissues, our theory would be refuted by the condition of the parts in the immediate vicinity of the matter. In fact we are compelled to reject any such notion when we reflect on the number of abscesses, without the slightest trace of inflammation to account for them; on the manner in which the venous radicles were affected in those abscesses, and on the way in which the passage of pus into the circulation could be traced.

CASE IV.—*Phlebitis after venesection.*

A young woman, twenty years of age, of good constitution, was bled at the sixth month of her pregnancy, on the 11th of January. On the 13th and 14th she complained of some pain running up along the biceps, with tumefaction. 15th. The pain is more severe: the tumefaction extends to the axilla; some fever. 16th. Extreme pain; agitation; tongue red and dry; twenty-five leeches were applied. 18th. The tumefaction extends to the thorax: the wound made by the lancet was enlarged, and a small quantity of pus discharged. On the 19th and 20th the state of the arm was much improved, but some alarming chest symptoms appeared; twenty leeches were applied over the sternum. 21st. Pulse 130, small; extreme thirst; cough; twelve more leeches applied. 23d and 24th. The patient is extremely low; the arm is scarcely swollen. On the 26th signs of labour manifested themselves; tongue, dry and hard; teeth covered with a dark crust; pulse extremely small; patient much agitated. At eleven o'clock, M. Cloquet finding that the cervix uteri dilated very slowly, made an incision into it, of about four lines, and the unfortunate patient, collecting her remaining strength, expelled the fœtus. She sank, however, at once, and died in a few hours afterwards.

Post-mortem appearances.

The median basilic vein is almost completely obliterated, and its walls are much thickened; all the veins which communicate with it are filled with pus. There are no abscesses in the cellular tissue or between the muscles. Near the clavicle the walls of the brachial vein are extremely thickened and lined with a thick layer of pus; the same kind of matter, but more intimately blended with the blood, is found in the continuation of the vein to the heart, the right side of which is completely

filled with it. From the point where the subclavian vein passes the scaleni muscles to the heart, there is no mark of inflammation. The other organs were healthy.

In this case, gentlemen, the existence of phlebitis was undeniable, but, you may ask, did the disease depend entirely on the phlebitis? I do not think so. In the first place, because M. Cruveilhier, and the other persons who examined the body, were convinced that no inflammation existed beyond the subclavian vein; because mere inflammation of the vein, confined to the arm, would be a local disease incapable of destroying life so quickly; and, finally, because the symptoms were not of a nature to be attributed to mere inflammation, unless we allow that the latter had extended to the heart and great vessels. In my opinion we must attribute the adynamic symptoms and speedy death, in the present case, to the state of the blood.

CASE V.—*Fracture of the ribs—abscess of the fore-arm—absorption of pus.*

On the 31st of October, a man, twenty-one years of age, was buried under the ruins of an arch, at which he was working as mason; he was taken at once to the hospital. The left fore-arm was much swollen; the radius broken, and the muscles seemed to be disorganized. The chest and abdomen were very painful. Twenty-five leeches were applied to the arm, and twenty-five more to the chest; and he was bled thrice in the space of twenty-four hours. During the 2nd, 3rd, and 4th of November, he continued to improve, and seemed to be out of all danger; but on the 6th and 7th, febrile symptoms set in, and the pain of the chest became more severe. Twenty leeches were applied. On the 8th the patient was again bled; he felt somewhat better on the two next days. 11th. Some delirium, which was extremely violent on the 12th; blisters to the legs; pills containing camphor and nitre. 13th. Considerable prostration; constant delirium and agitation; pulse small; tongue moist. 15th. Much better; no delirium; a large abscess has opened on the fore-arm, and discharges a good deal of pus; skin considerably detached. 17th. The patient appears to be doing very well; still the discharge of pus is abundant. 18th. The patient had a long rigor, without any reaction this evening. 19th. Face of a yellow colour; pulse small and somewhat hard; abundant discharge of grey fluid pus. 20th. Violent fit of trembling, which lasted nearly an hour, but was not followed by fever; the shivering was exactly like that of ague, and continued during the next three days. The patient became gradually apathetic, and the discharge of pus more fluid and foetid; on the 25th, a quantity of very fluid, pale blood escaped from the wound; the rigors continued at irregular intervals, up to the 27th, when they were followed by stupor, and the patient sank on the following day.

Post-mortem appearances.

Cranium.—Some points of the arachnoid opaque; two ounces of clear serum in the ventricles; nervous substance healthy.

Thorax.—Several pounds of fluid, which seems to be a mixture of albumen with pus, are effused into the cavity of the chest; about twenty small abscesses in different parts of the lungs, the sur-

rounding tissue being quite healthy. The right side of the heart contains purulent matter, and also the inferior cava.

Abdomen.—Three abscesses in the liver, like those in the lungs, but the pus more fluid, and of light blue tint; other organs healthy.

Limbs.—The muscles of the fore-arm are reduced to a putrid mass; numerous collections of pus extend from the seat of the fracture, up to the neck.

CASE VI.—Amputation of the leg—adynamic fever—death on the 11th day—abscesses in the liver—purulent infiltration of the thigh and buttock.

A soldier, fifty-two years of age, was admitted into hospital on the 3rd of May, 1826, for long-standing disease of the ankle-joint. His leg was amputated on the 7th; on the following day he felt great pain in the wound, but there was slight reaction. 9th. Pulse strong and full; more fever; in the evening copious perspiration. 10th. Stump hot and painful; general state the same; eight ounces of blood were drawn from the arm. 11th, pulse not so strong; tongue rather dry; thirst excessive; occasional perspirations; stump painful. 12th. The dressings were removed; a great quantity of pus escaped from the wound, the edges of which had not united; erysipelas, extending down towards the knee. 15th. Face yellow; pulse small and very unequal; tongue neither dry nor foul; the patient said he experienced no pain, except in the stump, which is still inflamed; the abdomen and chest were examined with the greatest care, but no trace of organic disease could be discovered. 16th. Some delirium during the night, followed by somnolence; discharge of pus much decreased; soft parts flaccid. 17th. Pulse small and very irregular; constant somnolence; tongue dry, but not foul. 18th. Prostration increasing; respiration difficult; death at eight o'clock.

Post-mortem appearances.

The integuments are detached from the stump up to the knee; the muscles look as if they were dissected by the pus; several collections of pus exist along the upper part of the thigh; arteries empty: veins inflamed up to the ham, and filled with pus; the inguinal glands are tumefied, and several of them are beginning to suppurate; all the cellular sheaths of the thigh were filled with pus; the same kind of infiltration was observed in the pelvis, where the veins are also filled with pus, as, likewise were the other veins up to the cava and heart; but here the matter was more or less mixed with the blood.

There are four abscesses, of the size of a small hen-egg, near the convex surface of the liver; the walls of the cysts which enclose the abscesses are of a dark-green colour; the tissue of the organ is everywhere healthy. The other organs of the body do not present any change worthy of note.

CASE VII.—Injury of the toe—symptoms of purulent absorption—death on the 18th day—some traces of peritonitis—tubercular masses in the lungs and liver.

—LOUVEL, twenty-seven years of age, of excellent constitution and general health, was admitted into hospital on the 2nd of October, for a cut on the great toe; the first phalanx

adhered by a portion of integument only. The parts were brought together by sticking plaster, and for the first four days the dressings were not changed; on removing them, union had not taken place; some pain, with discharge of pus, was felt on the fifth and sixth days; on the seventh, the inflammation had extended along the foot, which was very painful; there was some fever; copious discharge of pus. 11th. Skin hot and dry; epigastrium painful on pressure; 12th. Severe pain in the right hypochondriac region; respiration difficult; abdomen tense; eyes yellow; mouth and tongue dry; twenty-five leeches to the abdomen. 13th. Some improvement, but the abdomen is more tympanitic; twenty-five leeches again applied; delirium came on during the night. 14th. Tongue very dry in the centre; moist and red at the edges; respiration more difficult; skin hotter and drier; pain of the abdomen more severe. 19th. Constant delirium; all the symptoms are aggravated; forty leeches were applied to the abdomen, but the patient died during the night.

Post-mortem appearances.

Limbs.—Suppuration of the joint of the wounded toe; pus infiltrated along the sheaths of the tendons, and in several parts of the foot.

Abdomen.—Some traces of inflammation of the peritoneum, with effusion of purulent matter; internal surface of the alimentary canal quite healthy; the whole of the convex surface of the liver, on the right side is inflamed, and covered with false membrane; in the interior of the organ there are several masses of concrete pus, of different colours and degrees of consistency; one of the abscesses, as large as a hen's egg, adheres to the diaphragm, which, at this point, has also suppurated.

Chest.—The lower part of the right lung, where it lay over the morbid surface of the liver, presents a mass of concrete pus, exactly similar to some of those in the liver; the surrounding tissue is hepatized to the extent of a few lines; the lower part of the left lung is altered in a similar manner; other viscera healthy; head not examined; the blood-vessels contain a small quantity of dark, fluid blood.

Remarks.—In this case, gentlemen, the disease might, at first sight, seem to be a simple inflammation of some of the internal viscera; but if we examine it more closely, we shall find many serious obstacles to the admission of such an idea. How, in fact, are we thus to account for the abscesses in the liver? Why this formation or collection of caseous masses in an acute inflammation? How can we admit that simple inflammation of the liver and lung could have produced so quickly so many abscesses, and the accumulation of so many concrete bodies? Besides, were not the lesions of the internal organs evidently connected with the injury of the toe?

We cannot, in the present case, deny the existence of internal inflammation, for it was evident; but I am of opinion that this inflammation may be accounted for more easily on the principle of absorption of pus, than on any other. Looking at the case in a different point of view, I may observe, that the concrete masses found in the liver and lungs may give us a pretty correct notion of the manner in which tubercles are formed. It is the observation of such cases which has always prevented me from adopting unreservedly the

opinions of Bayle, Laennec, Broussais, &c., and also those of M. Andral; for I believe that there are two species of tubercles, one the product of inflammation, the other quite independent of it.

CASES

FROM THE EARLY NOTE-BOOKS OF THE LATE SIR ASTLEY COOPER, BART.

EXTRACTED WITH PERMISSION OF R. E. COOPER, ESQ.

No. VII.

COMPOUND FRACTURE OF THE OS HUMERI.

JOHN TAYLOR, aged eleven years, was admitted into Guy's Hospital on the night of Sunday, 28th of October, (A.D. 1808,) at 11 o'clock, with a compound fracture of the left os humeri, and laceration of the integuments, muscles, &c., so that the arm was suspended by a small portion of integuments only. This accident happened at 3 P.M. on that day, in consequence of his arm having been caught in part of the machinery of a water-mill, 15 miles from town. He disentangled his arm from the mill, and crawled to the yard, not many paces from it. A very profuse hæmorrhage began, and continued for half an hour, when a surgeon applied a tourniquet within about three inches of the shoulder, (the arm being separated near that part,) which immediately stopped the bleeding. He arrived at the hospital at 11 o'clock at night, and, upon entering one of the wards, became sick and vomited. In about an hour after this, the operation of amputation was performed by myself.

1st day, 2 P.M.—Tongue dry; he is very thirsty; has no inclination for food since the operation. The house medicine was given him this morning, and in three hours after he had a motion. He perspired during the night. He has made water about six times since the operation, (about half a pint at a time). His skin is now dry and extremely hot. He has had a violent headache since the operation, and much pain in the left ear, and he feels sleepy. Pulse 108, hard, but regular.

2nd day.—Appetite good. Has had several stools. Pulse 104. Skin hot. He passed a good night. Cut the plasters, which, from the swollen state of the arm, were too tight. Ordered Goulard wash to the stump.

3rd day.—Tongue dry. He is very thirsty. Has no appetite. Has been twice purged this morning. Discharges his urine, which is rather white and thick, freely, and at frequent intervals. Feels violent pain running over the shoulder and breast, and in the axilla. He slept well. Has frequent tremblings. Skin hot, but not very dry. Pulse 110, hard, but regular. He had four or five stools yesterday.

4th day.—Slept about an hour last night; was very restless. Shivering came on in the night, and lasted for an hour and a half, accompanied with fever. While the shivering lasted, he had pains in all his limbs, and he became sick. These were succeeded by a profuse perspiration, which continued till 7 o'clock this morning. He had violent pain in the stump, and over the breast. During the night a very fetid discharge took place. He had also violent pain in the head, and

about the bottom of the sternum. During the night he experienced cramp of the right wrist and hand. Has had one stool this morning. Appetite good. Pulse 104, hard, but regular.

5th day.—Passed a sleepless and restless night, with a little pain in the stump. The strappings were entirely removed yesterday, and fresh straps applied. Stump looks well; appetite good. No stool since yesterday. Perspired very much in the night. Had violent pain in his head and over his eyes during the night. His breathing had become a little difficult, but this has now left him. A considerable discharge still from the stump. Tongue slightly moist; he is not so thirsty as he was. Skin natural. Pulse 104, regular and soft.

6th day.—Slept all night and during this morning; feels easy, is not very thirsty. Had a little pain in the axilla in the night. The discharge from the wound is profuse, but healthy. Perspired this morning. Has had two purges since yesterday. Tongue moist; skin cool. Pulse 100, regular, but rather strong.

7th day.—Slept well last night, feels sleepy this morning. Discharge from the stump still continues very profuse. Appetite pretty good. Not very thirsty. Has had two stools since yesterday; skin cool; tongue moist and clean. Pulse 100, regular, rather harder than natural.

8th day.—Slept well. Has had no stool since yesterday. Perspired a little this morning; skin cool and moist. Appetite good. Pulse 100, rather hard. Tongue moist.

9th day.—Slept a little last night, and perspired freely. Had a little pain in the stump; he took a few drops of the tinct. opii, after which he was easy. Appetite good. Has had three stools. Discharge from the stump still considerable.

10th day. Slept well, free from pain. Appetite good. Has had one stool this morning. Tongue moist and clean. Pulse 100, regular, but rather strong.

11th day.—Slept well. Has a little jarring pain in the stump occasionally. Appetite very good. Has had two stools; perspired last night. Discharge from the stump less. Skin natural. Tongue moist. Pulse 90, regular, but still rather hard.

12th day.—Slept well last night, free from pain. Appetite very good. Has had two stools. Feels a little shooting pain sometimes in the stump. The discharge of pus is now become small. Tongue moist. Pulse quick and regular, but a little hard.

13th day.—Slept well last night; appetite very good. Has had two stools. The discharge from the stump has nearly ceased. He has occasionally a twitching pain in the stump. Tongue moist, skin cool. Pulse 104, rather strong, but regular. His strength increases daily.

14th day.—Slept well last night. Free from pain. Very little discharge from the stump. Appetite very good. Has had three stools since yesterday. Skin a little hot, but moist. Tongue moist and clean. Pulse quick, and not very strong.

15th day.—Slept very well last night. Appetite good. Has had three stools. Skin natural. Tongue moist. Pulse a little strong, but regular, about 80. There is scarcely any discharge from the stump, which is nearly healed.

16th day.—Slept well last night. Appetite good. Has had three stools.

17th day.—Slept well. Appetite good. Has

had two stools this morning. Skin rather hot, but moist. Tongue moist. Pulse rather quick, but regular.

18th day.—Slept well. Appetite very good. Has had three stools. Tongue moist and clean. Skin cool. Pulse quick and strong, but regular, &c.

The lad was presented on the 27th of December, cured.

STONE IN THE URETHRA.

Mr. —, in returning from Change a week ago, was attacked with suppression of urine. His urine had previously been always freely discharged. His apothecary passed a bougie, but still the urine did not flow with ease. I passed a catheter, and found a stone at the membranous part of the urethra. I put in a very large bougie nearly as far as the stone, and desired him to drink freely of diluting liquors. In twenty-four hours the stone had not passed. The next day I moved the stone a little from its situation with a bougie, and left it for an hour. Within twenty-four hours a large stone passed.

CARBUNCLE.

I saw Mr. —, *æt.* sixty-eight, with a carbuncle, which had existed about ten days. When first observed, it was composed of a number of pimples with white heads in the centre of each, and an inflammation around to the extent of seven inches at least; skin of a dark red colour; little abscesses upon it; skin slightly ulcerated, surrounded by an edge which marked the extent of ulceration, about three inches from the centre. Cured by turpentine locally, and bark internally.

POST-MORTEM INSPECTION.

I opened the body of —, of the sick and hurt office. He had had pain and swelling of the abdomen and obstruction of the bowels, with great wasting appearances. His liver was diseased by tubercles; intestines inflamed; the abdomen contained about a gallon of water; mesentery and omentum loaded with immense quantities of lymph. The colon at its sigmoid flexure bound down by adhesions, and so covered with lymph as to close the intestine. The bag of the omentum contained a large quantity of fluid.

POLYPI.

Mr. — has had polypi for several years; they stopped the passage of the nose, but were unattended with pain. They look like jelly in the nose, floating backwards and forwards, feeling heavy on the palate, and producing deafness. They swell, he says, when he suffers from cold. He sleeps with his mouth open, as he cannot breathe through the nose. Worse when he is heated than when he is cool. Change of air always makes a difference in them; warmth increasing their fulness. Injecting a stimulus into the nose inflames them, and makes them swell.

GUN-SHOT WOUND IN THE HAND.

A patient of Mr. — had a bullet shot through the palm of his hand. A tourniquet was applied, and kept on for thirty-six hours. In four days mortification came on in the part; the arm was

enormously swelled and very hard. His pulse was quick; his tongue dry, and has a brown fur; his face is flushed; his muscles tremble; no mark of reparation is beginning to show itself on the arm, &c. Takes bark and opium. He has only a few hours to live.

GNORRHOEA.

Mr. — had gonorrhoea which produced an inflammation of the prostate gland, and I have observed in old people that this is very apt to happen; his age was more than fifty. He was relieved by a blister upon the perineum. If the person has a stricture, it is always very considerably increased by gonorrhoea.

SUPPURATION OF KNEE-JOINT.

Mr. —, *æt.* 34. White swelling of knee-joint; twitching and shooting pains seized him in the knee and down the leg, about nine years ago, frequently so severe as almost to throw him down. The knee would sometimes swell, though not considerably; sometimes he felt pain about the tendo Achillis, ankles, and toes, but these parts did not swell. Sometimes the swelling and pain in the knee would entirely subside, and at other times he could walk and use this leg as well as the other; these changes have lasted about nine years. For the last four months he has not had the slightest use of this leg; the swelling is not very large, and is not inflamed externally. It is slightly painful on either side when pressed upon, though not always so. The pain has been more violent the last four months than at any previous time, with the exception of the last week or nine days, during which it has almost entirely ceased. His health has decreased rapidly until the last three weeks, during which time his health and strength have returned in a great measure. His leg at this time is completely useless. Cause of the disease unknown.

Amputated July 22. Examined the limb and found

A sinus leading into the joints. Semilunar cartilages and cartilages of the tibia entirely absorbed. The cartilage of the patella absorbed in a great degree. Ligaments thickened on the inner side, and loaded with lymph.

He died suddenly of hæmorrhage in the night, from his imprudently taking off the tourniquet.

COMPOUND FRACTURE OF TIBIA.

Richard Siffin, *æt.* 46 years, was admitted into Guy's, on the 12th of July last, with compound fracture of the tibia. A portion of bone, three inches in length, protruded through the integuments. It was caused by 4 or 5 cwt. of lead falling on the limb.

The man had repeated hæmorrhages, and was so much reduced by irritation and discharge, as to render amputation necessary. Performed below the knee, by making two flaps of the integuments, on July 30.

The man became delirious after the operation, but ultimately recovered.

placed under a surgeon twelve miles distant," (14763) who had at first no regular deputy. There were in that town several medical practitioners. The parish of Petistree, in this union, was distant four miles from the district surgeon, though three surgeons were within one mile of it. One of the consequences of this arrangement was a flagrant case,* (published in 1835,) in which three days were lost in fruitless application for medical attendance, and the patient died early on the fourth day, not having been seen by the surgeon until about thirteen hours before death.

In the North Aylesford Union (14763) a medical man not resident in the union was at first appointed to all the fifteen parishes, three of which were four miles distant from him; three, five miles; one, six miles; three, seven miles; one, eight miles; one, nine miles; and one, ten miles.† None of the resident practitioners would undertake the duties, on account of the inadequate terms proposed by the guardians. So badly did this arrangement, "deliberately formed" by these "most competent judges," turn out, that they were obliged, in 1837-8, to raise the remuneration, and appoint three medical officers, one of whom was, nevertheless, in charge of *nine* parishes, and *ten* miles distant from part of his district.

But the arrangements were by no means always improved by time and experience; e.g. in the Bradfield Union (14767) tenders were annually advertised for. The parishes were at first distributed into four medical districts, and though this division of the union was injurious to the sick poor, yet in the second year the guardians reduced the number of districts to *three*, which division was in force in 1838-9.

With an example like this before him, one of the witnesses was fully justified in remarking, "that the strong remonstrances (14764) which have been made, may have acted for a time in modifying the evils, but they are liable under altered circumstances to occur again."

The Thame Union (14763) afforded another instance of the incompetency of the guardians to form medical districts. This extensive union‡ was divided into three districts, (identical with those of the relieving officer,) the area respectively twenty-eight, twenty-two, and thirty-one square miles, the form of each most inconvenient, and the extent of the last seventeen miles in one direction. To attend either of these districts was out of the power of any one surgeon, owing to the nature of the country, and the impracticability of communication. This was strongly urged on the board of guardians by a resident practitioner of eminence, but without effect. The medical officers were therefore compelled to engage deputies (from among the neighbouring practitioners) to attend to a considerable number of their parishes. Notwithstanding the adoption of this expedient, the poor were still subject to most serious inconvenience.

§ 29. This practice of "re-letting" parishes to other practitioners had prevailed to a considerable extent previous to the parliamentary inquiry. In some instances, as in the last, the medical men resorted to it of their own accord, as the only means of performing the duty of the districts

which the guardians had so injudiciously awarded them. Having, as they considered, *advantageously disposed* of the appointment, the guardians seldom objected to the employment of as many deputies as the medical officers might wish, merely declaring that they should hold him responsible for the duties!

In other cases (under Dr. Kay's management) the guardians themselves superintended the subdivision of the districts.

The medical witnesses urged the impropriety and absurdity of this plan, and showed that there was no practical responsibility (15378) on the part of the subcontractors, but that the medical officers alone were made responsible for the actions of those over whom they had no control. It was further insisted, that if one practitioner could not perform the duties of a district, the guardians were bound to appoint an adequate number (14766), and that each gentleman employed in union practice should *individually* be responsible to the authorities. (18415)*

Dr. Kay attempted to defend this kind of arrangement. (5064) "It has been almost universally the rule to permit the medical officers so elected, to provide themselves (with the approbation of the board of guardians) with whatever subsidiary assistance, among their professional friends, they might deem requisite for the right discharge of their duties; and that course has been adopted, because it was exceedingly difficult for the boards of guardians, or for the assistant-commissioners, to adapt the districts to the convenience of each medical gentleman in the district, without appearing to make districts for particular medical men;" the fact is, that "the board of guardians, upon recommendation from the medical officers after they are elected, immediately re-arrange the districts, and they assume a new form." (5066)

Dr. Kay thus virtually relinquished the district system; for if the parishes were to be apportioned among the resident practitioners according to their convenience, such an arrangement might have been made *in the first instance*, as your committee have before suggested.

The whole professional body (or a deputation on its behalf) in each union might have assisted the boards of guardians in determining the number of the districts *before* the medical officers were appointed, and the strange anomaly of immediately re-arranging the districts might have been avoided.

Why then, we may ask, did Dr. Kay and others advise a distribution requiring such speedy modification? The reason is obvious; large districts were necessary to attract candidates, as well as to give the officer "a motive to retain his contract." (1865, Mr. Gulson.) Having attained that primary object, the apportionment of the duties was a secondary affair, which the guardians were ready to leave to others.

§ 30. Mr. Farr's evidence as to the size of districts, and the distance of parishes from medical advice, is of very great importance; he deduced the following facts from the parliamentary returns. (15703 et seq.) "The Newbury Union is seventy-

* Mr. Coely having ascertained of the chairman of the Aylesbury board, that the medical officer of the district "would be personally responsible," made this remark to his medical neighbours: "Any of you may appoint me as your substitute, if you please, but I will not employ any of you as my substitute; I do not hold it possible to be responsible for any medical man in his practice, nor for me to hold him under control." (16983.)

* Appendix, First Provincial Poor-Law Report.

† Ibid. p. 42; and Lancet, No. 632.

‡ Appendix, First Provincial Poor-Law Report.

two square miles in area, the Leighton Buzzard Union is fifty-five square miles. The surgeon appears to reside nearly in the centre of the district, but it is eight miles from his residence in one direction. District 2 of the Oakhampton Union fifty-four square miles, and the boundary eight miles from the surgeon's residence. In the Northleach Union, the area of two medical districts is 109 square miles; the surgeon resides out of the district; apparently it is eleven miles from his residence to the southern extremity. In Northumberland, the Haltwhistle Union, two districts, comprise 108 square miles. In Westmorland, Shap-west-ward comprises ninety-eight square miles; the distance from the surgeon's residence in one direction is nine miles. In York, the Driffield Union* comprises 115 square miles, its population 14,718."

Mr. Farr also mentioned the immense population of several other districts; (15707) for example, the Dovor medical district comprises a population of 20,507; the Sevenoaks and Shoreham district a population of 13,735; Leicester union, district No. 1, 23,954 inhabitants; Bethnal-green union comprised a population of 62,018 in 1831; it is divided into three districts. Other districts were alluded to, which though not excessive in population and area, yet presented serious obstacles to a prompt supply of medical relief; for example, "in the Ledbury Union, district No. 2, the surgeon appears to reside out of the district; the distance from his residence is eleven miles in one direction, and ten miles in another; so in the Leominster Union, district No. 3, the surgeon resides out of the district, the distance of the boundary from his residence being twelve miles in one direction. In the Hereford Union, district No. 3, the distance is ten miles; in the Broughton Union, Lancashire, eleven miles; in the Calton district, twelve miles; in the Clun Union, eleven miles," besides several similar instances.

Mr. Gulson could not understand why *the poor*, in cases of extreme distress, should suffer more from the distance of medical advice than other sick persons. (1891.) The testimony of the medical witnesses would have informed him. "In the first place, (15706) they have to send to the relieving officer and to the surgeon, a distance of seven, eight, ten, eleven, or fourteen miles, and after they have sent for the surgeon, they have to send for medicine, or the person has to wait at the surgeon's house until he returns and orders the medicines. . . . If the distance were less considerable, younger children might be sent; but when the distance is so great, of course a grown-up person must be necessarily employed; and that causes a great waste of the labourer's

* "At a meeting of the newly-elected board of guardians of the Driffield Union,—the assistant-commissioner, Mr. Revans, in the chair—Mr. Harrison, the medical officer of the union, stated his inability to continue the arduous duties of his office, at the present inadequate salary. He stated to the board that he had to attend the sick poor of forty-six parishes, extending over sixteen miles from his house,—on the days of meeting of the guardians, he had to remain at the board during the sitting, and to supply all the medicines, for which he received £120 per annum; in the medicines alone he was a loser by the contract, without taking into account the keep and salary of an assistant, and the expenses of an extra horse. After a long discussion, the guardians informed Mr. Harrison that they highly approved of his services, and wished their continuance, but could not increase his salary; on hearing this determination, he immediately resigned, and the board ordered that tenders to supply the poor with medicines should be advertised for."—*Times*, April 2, 1838.

time."* Nor is the injury confined to the poor. "The increase of expense to the surgeon is immense; the difference between visiting patients scattered over a small and a large district must be very great; it would involve the keeping of two or three horses, in addition to the horses which he would require for his private practice. It has a direct tendency to increase the expense of the medical attendance: whether that expense is borne by the surgeon or the guardians, is indifferent; it is an unnecessary expenditure of time and labour which might be otherwise employed."

Mr. Farr afterwards observes, that "it has been said, that making the district large increases the interest of the medical officer in the appointment; but the remuneration can never be sufficient to cover the increase of expense; and no salary that the poor-law guardians could give would be equivalent to the labour, if properly performed, in those large districts."

The consequence of placing so many patients (15718) under the surgeon's care is, that "he cannot examine the cases with sufficient care, though he may have the best intentions."†

"In all cases where sufficient time is not allowed to medical men, (and that time cannot be allowed where the districts are so large, and the cases so numerous,) errors innumerable must be committed, and those errors must lead to fatal results, in many cases. The remote poor are placed in a comparatively disadvantageous position; the paupers in the immediate vicinity of the medical man have a great advantage over the paupers situated at a distance; and I should not think that the rate-payers intend that the medical relief should be distributed in that irregular manner." (15795)

"Large districts are decidedly subversive of the objects of medical attendance, and calculated to deter many medical men from undertaking the duty at all. Why should we saddle ourselves with a duty which (from our own experience of parochial employment) we know we cannot perform?" (15444)

Mr. Wakley, however, with his usual acuteness, in the course of Mr. Gulson's examination, suggested a motive which, doubtless, influenced the guardians in framing extensive districts, and speculating medical officers in accepting them; namely, that there would probably be fewer applications for relief from distant parishes. (1862, 1870-1) A simpler method of depriving the poor of medical aid, *without the trouble of refusing it*, could not have been devised.

§ 31. The poor-law commissioners acknowledged, with regard to their new distribution of parishes, that "the effecting of this object caused some disturbance to the medical practitioners, extending the private practice of some, whilst it curtailed that of others."

It is fair to ask by what authority the commissioners thus presumed to infringe on the justly

* "Even though the private practice of the medical man carried him through the whole extent of the district, the poor are not able to obtain their medicines without sending a considerable distance for them."—Mr. Toogood. 15909, &c.

† If the patients were properly attended to in these large districts, the number of cases which the medical officers would have to visit daily would be immense.

Mr. Farr deduced from the returns that the number constantly sick, and "under the care of the medical officer in Leighton Buzzard, amounted to 100, scattered over an area of 55 square miles; in the Newbury Union to 93. If those persons were seen every other day, the surgeon would have daily to visit 46 patients, scattered over an area of 72 square miles." (15707.)

acquired rights of individuals; and we are at a loss to understand how they could reconcile this with their previous assertion, that they "had never sought to disturb the medical practitioners in their respective districts."

They could not have been ignorant that the appointment to new districts of established practitioners, who, being previously known in the neighbourhood, could more readily obtain that portion of private practice "which always, more or less, goes with the public appointment, acted as injuriously on the interests of the former parochial attendants as if strangers had been introduced." (14865.)

And with regard to the interests of the sick paupers, "even where the resident medical men were engaged, this new distribution had the effect of removing the poor of some parishes to a greater distance from medical advice," (14763) and depriving the sick of the medical attendants to whom they had been accustomed.

§ 32. One of the methods adopted by the commissioners to defend the propriety of their arrangements, deserves notice in this place. It consisted in eliciting favourable reports from the boards of guardians, and other persons deeply interested in the success of the new system, which are published in a tabular form in the appendix to their second annual report.

Some of these documents were brought forward by one of the medical witnesses, to prove how little reliance could be placed on the *ex parte* evidence derived from such sources. We may also refer to the unions which have been already described in this report. For instance, in the North Aylesford Union the guardians reported the medical arrangements as "adequate to the relief of the paupers." In the Wallingford Union they pronounced them as "quite adequate, and equally efficient with the former arrangements." In the Eton Union, "adequate and decidedly better." In the Faversham Union, "quite as adequate and more efficient." In the Hambledon Union, as "adequate and as efficient." In the Tendring, "adequate." In the Woodbridge, "quite adequate, and quite efficient." In the Aylesbury Union "adequate and efficient."* And yet, will it be credited that these same guardians, who were at length compelled to dismiss two of their medical officers for neglect or improper conduct, had the hardihood to report, that only two or three complaints were made, which, on investigation, proved to be without foundation!! In the Bridgewater Union, the disgraceful system adopted was described by its authors as being "adequate and more efficient."

It does not appear that the guardians of any one union noticed in this report have ventured to state the real nature and effect of their proceedings; or if they did, the commissioners have omitted to publish it.

With respect to the Newbury and Shipston unions, the assistant-commissioner, Mr. Stevens, collected a number of declarations from overseers, guardians, churchwardens, and relieving officers, may even from a few of the clergy,† in favour of

the efficiency of their arrangements for medical relief.

With regard to the first, we are able to state, on good authority, that a far greater number of attestations to the inefficiency and inhumanity of those arrangements might be obtained by an impartial appeal to the more independent portion of the inhabitants; and with respect to the second, the guardians have themselves practically invalidated their statements by an entire change of system.

If these bold and mendacious statements are to stand as evidence that enormous medical districts are not incompatible with efficient attendance on the sick poor, why have they not been universally adhered to? Why did the parliamentary committee report that "the size of the medical district is in many instances inconveniently large," and that they should be reduced, "so as to admit an easy access of the medical man to his patients?" And why do the commissioners now profess their readiness to reduce the extent of these districts?

It is scarcely necessary for your committee here to observe, that there is no system, however indefensible in principle and injurious in tendency, which will not find its advocates and even its partisans among those who, from the trammels of selfish interest, either cannot perceive or will not avow the evil so conspicuous to every one besides.

§ 33. Mr. Gulson fully admitted that the districts are larger than before; (1771) adding afterwards, that there was nothing to prevent the commissioners and guardians from making such reduction in their size as they might deem necessary. (1773) He, however, recommended, (1889) in agricultural localities, that the medical districts should extend about five miles all round the medical officer, (depending on the population,) i.e. a diameter of ten miles, and an area of more than sixty square miles. He also argued (1774-80) that "small districts do not give the medical officer sufficient motive properly to attend to them; that private practice would in such cases be the most important part of his consideration," and that the pecuniary amount of a contract would be an inducement to attend sedulously to the poor;—"that if a medical man has a large contract, it is much better worth his while, I conceive, to attend properly to the poor, than when he has so small a contract as to be beneath his notice."

These considerations apart from others might have some force, but if the amount of the contract be made the chief motive for efficient attendance on the poor, it is clear that the contractor ought to be maintained by his contract, without looking to private practice as the main source of subsistence. Mr. Gulston and his colleagues were, however, quite unprepared to draw this just and obvious conclusion from their argument, not foreseeing that when the contractor for a large district has obtained the private practice, without which he cannot maintain his position, the poor will again become a secondary object of consideration.*

number of *clergymen*, and I have never heard any complaint from the poor themselves." Would the unhappy paupers dare to tell their complaints to an assistant-commissioner, or to his clerical friends?

* A striking illustration of this result is afforded by the Leigh-ton Buzzard Union.

The guardians endeavoured to obviate the difficulties arising out of the connexion of private and union practice, by confining their medical officer to the duties of his appointment, and prohibiting him from other engagements. (15404.) They provided

* If our space permitted, and if the description of that union (§ 18) were not a sufficient refutation of the statement of the guardians, we could detail cases occurring in remote parishes, e.g. Haddenham, (published in Times, April 6, 1838,) Hawridge, &c., which would convince the most sceptical.

† Mr. Gulson stated, (1747,) "I have also inquired of a great

Mr. Gulson overlooked the motives which might induce a medical man with a small district to attend the poor,—a district which could be conveniently and thoroughly attended, in connexion with profitable private practice. The medical witnesses thus describe them:—"The inducements which a medical man has to perform his duty in a small district, and under the notice of his most influential patients," where his character and reputation are deeply at stake, are stronger than those afforded by a large and non-remunerative contract, which cannot be connected to any extent with private practice. (14775) "The medical attendant upon the poor being also the attendant upon the rich, has it in his power frequently to assist the sick poor from private resources: the rich are ready to inquire of him what can be done for the poor." (15396)

"It is desirable for a person who is practising amongst the higher classes, to be aware of the epidemics that prevail amongst the poor; it is valuable to the poor, useful to himself, and advantageous to the community." (15441)

"It is often extremely harassing to the medical man to observe the destitution which the labouring classes suffer under disease; a small extent of parochial practice is abundantly sufficient for every humane man upon these grounds." (15382)

§ 34. Some of the assistant-commissioners appear to have acted on principles diametrically opposite to those adopted by Mr. Gulson, and sanctioned by the central board. For example, Mr. Power said, (4283) "The course which I pursued was to have the services of all the gentlemen eligible for that purpose, whom we could meet with in the district,—that the poor should not be confined to one, or two, or three, or four parties in the union, but that every medical man should, if he thought proper, take a portion of the business;" and with reference to one of the large districts, formed by another commissioner, he remarked, "I would say without hesitation, that was not the state of things I could look upon with satisfaction by any means. (4284) I do not think there are any unions in my former district, where a medical officer resides at more than three or four miles from any point of his district." (4289)

Dr. Kay endeavoured to reconcile the discrepancy in the proceedings and evidence of his two colleagues. He admitted with Mr. Gulson, that in small districts you must sacrifice to a certain extent the advantages alluded to, viz. "that the medical officer's interest in his duties should be increased by the amount of income he receives, which however, (he said,) is not a consideration which ought to be lost sight of." But in order to secure a reduction in the size of districts, without

him with furnished apartments, and paid him somewhat more than £200 per annum, for which he furnished medicines.

The guardians considered that they should thus secure his whole time and attention to his official duties, and protect the practice of the resident practitioners. However, after the medical officer had held office for two years, he resigned it, in order to obtain private practice, but soon afterwards left the place suffering from a combination of disappointment and ill health. (15408.)

It is clear, therefore, that no attempt to sever parochial from other practice could succeed, except by binding the medical officers "under a penalty not to practise then or subsequently in the neighbourhood." (14886.)

Your committee cannot recommend such an arrangement, for even if it protected professional interests, which is extremely doubtful, it would deprive the poor of the advantages resulting from the connexion of parochial with private practice, and from the proximity of medical advice.

sacrificing this advantage, he recommended the imperfect subsidiary arrangements to which we have before called attention.

The size of Dr. Kay's districts, thus modified, was certainly below the general average. In Suffolk, his average was sixteen and a half square miles; in Norfolk, twenty and a quarter square miles. (5062) Still, from the table which he had (very properly) prepared, containing the size and population of each medical district, there appeared to be several of a very indefensible extent, for instance:—

Docking,	No. 1,	Area 44 sq. m.	popula. 5,821
Erpingham	" 6	" 40 "	" 6,751
Walsingham	" "	" 44 "	" 6,741
Cosford	" 4	" 27 "	" 5,609
Do.	" 5	" 29 "	" 5,743
Hoxne	" 7	" 37 "	" 8,099
Wangford	" 1	" 30 "	" 6,581
Do.	" 2	" 24 "	" 6,500

The districts in the Hartismere and Sudbury unions are equally objectionable, both as to size and population.

Dr. Kay said, "There are particular districts, in Norfolk especially, where there are wide tracks of barren land, that very much interfere with the apportionment of proper districts."

"In these unions upon the marsh, fen, and barren lands, there are very few inhabitants, and of course the medical district is on that account rendered more extensive than it otherwise would be." (5062)

One would suppose, therefore, that such districts would contain a smaller population than others, yet Dr. Kay's table contradicts the tenor of his evidence, for we find that in the Blofield union, notwithstanding two large districts contained, according to his report, "a great extent of marsh land," their population respectively was 4,865 and 4,948. So in the Downham union a district containing forty-four square miles, "marsh and waste," contained also no fewer than 6,042 inhabitants; and another district of forty-two square miles, 4,059 inhabitants; again, in Swaffham, a district containing fifty-one square miles, and "very extensive commons and wastes," had 4,012 inhabitants; and worst of all, in the same union, and under the same circumstances, appears an enormous district containing fifteen parishes, fifty-seven square miles, and 6,325 inhabitants!! In districts necessarily so extensive from the nature of the land, a population of 2,000 should have been the maximum.

Dr. Kay expressed his fear lest the formation of small and convenient districts should lead to *favouritism*, (5080) and to an *undue consideration of the interests of individuals*. All which might, of course, be prevented (as before suggested) by affording the medical practitioners of the union an opportunity, before the appointments were made, of expressing their opinion collectively, as to the distribution of parishes.

But Dr. Kay overlooked the fact that large districts inevitably lead to favouritism, of which a remarkable case has already been detailed in the Shipston Union, and similar instances may be seen in the published accounts of the Eastry,* and Tonbridge† Unions.

* Appendix, p. 53. First Prov. P. L. Report.

† Ibid. p. 75.

The guardians have always been disposed to "favour" the medical officer whom they have appointed to an extensive district, in opposition to the wishes and remonstrances of the profession.

§ 35. One of the results of the increased extent of the district, viz. a reduction in the number of practitioners employed, was pointed out to the parliamentary committee. (14783) To the unions there mentioned, we add a few others in the subjoined table, which shows a reduction, on the whole, of seventy-one per cent. on the formation of the unions.

This table includes all from which the returns made to your committee were duly filled up. It will be seen that an increase has since occurred in some of the unions, and perhaps in a very few others, as there are six from which we have not received recent information.

UNION.		Number of Practitioners. Old System.	Number of Practitioners. New System.	Number of Practitioners added since 1837 and 1838.
1	Lincoln	16	3	6
2	Bridgwater	16	7	1
3	Aylesbury	16	3	3
4	Epping	11	8	*
5	Eton	8	3	*
6	Faversham	8	1	5
7	Hambledon	7	1	1
8	Newbury	12	1	0
9	Ongar	10	4	*
10	Shipston	10	2	2
11	Wheatenhurst	5	1	1
12	Banbury	15	3	6
13†	Penshurst	3?	1	*
14†	Cookham §	8	2	*
15†	Stow §	9	3	9
16	Easthampstead	3?	1	1
17†	Tonbridge, 2 districts §	5	1	0
18	Eastry	10	5	1
19†	Windsor 1 district §	4	1	*
20§	Witney 1 district	8	2	*
21	Woodbridge	10	4	2
		194	66	39

Dr. Kay's evidence should, however, in fairness be produced to show, that in his districts, a majority of the established medical practitioners, "most respectable medical gentlemen," (5086) had accepted appointments, though many of them merely as subsidiaries. He nevertheless admitted, that there were particular instances in which he "very much wished that the arrangements were better." (5112) ||

* Information not lately received.

† Number previously employed not positively ascertained.

‡ Appendix, First Prov. P. L. Report.

§ Parliamentary Returns.

|| He states, (5086) that in Norfolk and Suffolk, the number of medical practitioners employed in the unions is 169; the number duly qualified and resident 222. Now, at first sight it would appear from these figures, that so large a proportion as 70 per cent. of the resident practitioners were employed, but his subsequent facts correct so erroneous an impression.

The number of resident medical officers is stated to be 127; the number of non-resident, (attending adjacent parishes,) 42. Now, it is more than probable that many of these 42 non-residents were also medical officers in the union in which they resided, and are therefore included in the 127, which number probably represents more nearly the actual number employed.

PROVINCIAL

MEDICAL & SURGICAL JOURNAL.

SATURDAY, JULY 17, 1841.

In the course of a few days, the Anniversary Meeting of the Provincial Association will take place, and it is highly desirable that all who take an interest in the welfare of the association should endeavour to attend. The many questions of importance which have so prominently occupied the attention of the medical profession during the past year, and to which also the best consideration of the council and other members of the association has been given, must necessarily engage no small portion of the time allotted to the general meetings. From the outline of the proposed report circulated among the members of the council for their consideration, it is evident that important information upon several of these questions will be laid before the association; and without being disposed to indulge any very extravagant expectations of their immediate settlement, we cannot but observe that steady progress has been made, and we think with the best prospects of ultimate success, in most of those objects to which the association has especially devoted attention. The subjects of medical reform, parochial medical relief, and empiricism, have each of them received the full consideration of the council, and we have no doubt that the cautious and well-digested measures adopted since the last anniversary will meet with the approbation of the meeting.

In respect to the first of these questions, it will be found that the proceedings of the council have been strictly in accordance with the resolutions adopted by former meetings, and at the same time well calculated to carry these out, and to ensure the general recognition of the principles on which they are founded. While every practicable means has been employed to advance the progress of the general question, and to encourage the free diffusion of sound views, the council have obviously

His supposition is corroborated by Dr. Kay's statement, that 95 (78 and 17) out of the resident 222, are not medical officers. The number 169 cannot, therefore, be satisfactorily explained.

We have also reason to believe, that Dr. Kay has considerably underrated the number of qualified resident practitioners. For on referring to the First Report of the Registrar-General, we find the population of Norfolk and Suffolk to be 689,758. Now, if the number of practitioners be only 226, (222, together with 34 subsequently added to Dr. Kay's table,) the proportion of practitioners to population, is 1 to 2,667; which, it is unnecessary to say, is considerably below the proportion of medical men in the country at large, and can only be accounted for on the supposition of the boards of guardians having made inaccurate returns.

In the last number, p. 293, col. 1, line 34, for *we read most*. In p. 295, col. 2, last line but one, for *I read we*.

been careful not to lend themselves to the visionary or exclusive schemes of a few individuals, whose judgments are, on the one hand, biased by self-interest and prejudices long entertained, or, on the other, warped by the pressure of continued neglect and injustice. It is not the least among the evils resulting from an oppressive line of conduct adopted, and pursued for any length of time, that a tendency is thereby created in favour of extreme measures of an opposite description. Where injurious restraints have been long felt, where the burden has been added to little by little, until at last the utmost limits of endurance are passed, it is surely not to be wondered at, that the curb should at length be broken, and the liberty thus procured be often employed in the attainment of purposes which could scarcely prove otherwise than injurious. The necessary effect of undue restraint, pushed to the extreme of sufferance, is the casting away of all restraint, even of that which is salutary, with the risk of the subsequent adoption of one or other of the thousand Utopian schemes to which such a state of affairs is sure to give rise. Every great political change which has hitherto occurred, affords illustration of these principles; every variation recorded in the history of philosophy and science, bears testimony to the same truth. The abuse and arbitrary exercise of power is ever followed by unrestrained license, and the further the tyranny of the one or the few has been carried, the greater is the extent of the reaction, and the wilder and more ungovernable the outbreak of the democratic principle. In science also, of which medicine affords to us the most appropriate illustration, the operation of the same principle is equally evident; the exclusive humoralism of one age thus gives rise to the exclusive solidism of the next; and we in our own day, when we profess to weigh well the arguments on both sides, and make it our boast that we are *nullius in verba*, there would seem to be some danger of again passing beyond the limits of the just medium within which truth is alone to be found. The time is one of change, and we will hope also one of improvement; but the onward progress, as well in questions of science as in those of polity, should be with that deliberation and caution which the advanced state of intelligence and the complicated relations of society require. In the infancy of civilization and of philosophy, the false or erring step and the tottering and uncertain progress of the first experimenters in either were to be expected, but in the more assured and experienced step which ought to mark the intellectual growth of a riper age, the same hurried and wavering progress, the same heedless chase after every parti-coloured trifle

that flutters across the path, ought no longer to be witnessed. The improvement should be steady and sure, and the progress such as to show no uncertainty or vacillation, to require no retracing, until the object sought for is finally attained. There are no real obstacles which perseverance will not surmount, if aided by prudence and directed by judgment. The objects sought by the medical profession in the attempt now making for a reform of their institutions, are an improved and more uniform system of education, a comprehensive organization of the whole body, and efficient protection for every individual practitioner in the exercise of his professional calling.

In the attainment of the first of these objects, it is not necessary to interfere with existing schools and collegiate establishments, further than to require from each a certain course of instruction, and from the pupils of each a sufficient certificate or test of having received the requisite qualification, before obtaining a general license to practise. By the second, it is only sought to obviate the anomalies at present existing, and to enrol the entire profession in one or more bodies, without interfering with the present medical corporations, further than to extinguish injurious and exclusive privileges, and to abrogate all irresponsible powers; and, by the third, to secure the licensed and legally qualified practitioner from all interference with his rights and privileges by ignorant and unauthorized pretenders, and to afford them such other protection in the maintenance of their respectability, and the acquirement of their dues, as are possessed by all other classes. The best method of obtaining their objects is only to be arrived at after due and careful deliberation, not by one order of the profession only, not by committees of existing corporations, nor by the dictation of a few individuals. The progressive advance hitherto made by the Provincial Association has been the result of much deliberation, and we do not doubt but that the caution which has characterized their previous proceedings will also mark those of the meeting at York. The account given of the proceedings of the council, since the Southampton meeting, in their report, is open and straightforward, and we are glad to find that it has met with the approbation of the branch meetings.

The crying evils attendant upon the administration of the present system of poor-law medical relief have met with almost universal reprobation. No difference of opinion exists in the profession here; and the association, in all its proceedings upon the point, has acted with energy and decision, the council using every means in their power to bring the grievances felt by the profession before the legislature, and to devise such

measures as would seem likely to prove beneficial in redressing them.

In this, as the report states, they have been ably and powerfully assisted by Mr. Serjeant Talfourd, and we trust that when the Poor-law bill shall again come before parliament, the clauses drawn up by that gentleman will become a part of the measure to be enacted. In reference to this point, it will be the duty of the association to express itself strongly, and we hope to see a firm remonstrance and petition sent up from the York meeting, pointing out in as forcible a manner as possible the evils complained of, and the necessity which there exists for redress, and pressing the adoption of the proposed clauses.

With respect to empiricism, we observe that the council are not disposed to think that any measure for its restraint can be adopted, except in connexion with the question of general medical reform. Whether this be so or not we do not profess to determine, but we feel convinced that no question is of more immediate importance, both to the public and the profession, than this. Some curious details connected with this subject have lately been published in America. It appears, from some statistical researches entered into by Dr. Cartwright of Natchez, to which we shall take another occasion of alluding, that a remarkable increase of mortality occurred in that place immediately consequent upon the encouragement afforded by the inhabitants to certain empirical pretenders, who have, within the last seven years, established themselves there. We believe that, could the registration returns of our own country be similarly investigated, the like result would be found; and perhaps there is no surer method of placing a check upon empirical practices, than the publication of authentic statements of this character. It is mainly through the circulation of false or perverted statements of partial success, that the public are induced to seek assistance from the quack. Many of the provincial newspapers give the fullest currency to quack advertisements of every description, and in return for the advertisement the proprietor of the paper often becomes agent for the sale of the nostrum. The lie is abundantly circulated. Surely some attempt should be made to disabuse the public by an equally extensive circulation of the truth. There is no question but that the publication of Dr. Cowan's pamphlet on the subject of empiricism, some time back, tended much to this end; and were there no other evidence of its beneficial effects, we should be disposed to look upon the commotion which it created among this nest of hornets as in itself a proof of the potency and efficiency of his arguments. Whatever measure it

may seem fitting to the association to adopt, we trust that every encouragement will be given to the members of the committee on empiricism to continue their praiseworthy endeavours at exposing the evils of the system, and that some means will be devised of extensively circulating any facts which the report on this subject may contain.

These constitute the principal features, likely to prove of general interest to the profession at large, brought before the association in the report of the council. Those relating to the more special interests of the association are the state of the benevolent fund, to which we have recently called attention; the report of the committee on medical topography; and the proposition relative to this journal. To these, however, we shall not here allude. One important feature in these meetings, or, as our continental neighbours would term them, "reunions," we trust will not be overlooked upon this occasion: we mean the opportunity which they afford of cultivating the best and most kindly feelings of which our nature is susceptible, in the revival of former friendships, and the renewal of intercourse long suspended, among those whom distance and the pressure of daily and urgent avocations have separated. These anniversaries, to the members who have regularly attended them, are marked on the tablets of memory by many recollections of this description. Independent of their real utility to the progress of medical science and the advancement of the interests of the profession, they become, in this respect, *dies cretæ notandæ*; and there are few members of the association who have not thus occasion to look back with gratification upon some friendship renewed, some forgotten traces of bye-gone times, lost in the long vista of a laborious life, once again brought into the vivid realities of present existence. For our own parts, we look to these meetings, apart from the more serious occupation of the day, as the means of affording us an intercourse with those we esteem and look up to, which we should in vain hope to obtain in any other way, and we trust that each succeeding anniversary may be distinguished by a recurrence of similar gratification to all who attend on these occasions.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

NEWTON BRANCH MEETING.

THE members of the NEWTON BRANCH of this association celebrated their fifth anniversary at the Leigh Arms Hotel, Newton, on Thursday last.

The business of the day commenced with a preliminary meeting of the council at eleven o'clock

in the forenoon; soon after twelve the retiring president, Samuel McCulloch, Esq. of Liverpool, took the chair. At this time there were assembled a number of the most respectable and influential medical practitioners in this part of the kingdom; amongst others, we noticed Thomas Jeffreys, M.D., David Baird, M.D., William Duncan, M.D., J. M. Banner, Esq., Hugh Neil, Esq., of Liverpool, Edward Holme, M.D. F.L.S., Edmund Lyon, M.D., G. A. Cleaytor, M.D., Robert Thorpe, Esq., Joseph Jordan, Esq., William Goodlad, Esq., of Manchester, William Twenlow, Esq., of Northwich, James Kendrick, M.D. F.L.S., John Sharp, Esq., and G. W. Hardy, Esq., of Warrington.

Dr. Baird, on taking the chair, made a few observations on the unexpected position in which he found himself placed through the absence of Dr. Jones, and concluded by calling upon Mr. Hardy, one of the secretaries, for the report of the council, which he read. From amongst a variety of topics, chiefly relating to the proceedings of the association during the past year, its finances, &c., we select the following passages:—

"Your council have had great pleasure in observing the rapid progress which the question of medical reform has made during the past year. Besides the three principal medical corporations, most of the other chartered colleges have admitted the necessity of extensive changes and amendments, and the well-directed efforts of the various medical associations have forced the consideration of this all-important subject upon the legislature itself.

"Still it is manifest that the present state of this question is such as to demand the most careful and judicious management; and the future steps to be taken in pursuit of the highly desirable end we have in view, will require mature deliberation, and a comprehensive survey of the opinions and sentiments of all parties concerned."

"The error which has hitherto pervaded much that has been done relative to medical reform, has been a too great haste in the devising of the specific plans upon which such reforms should be conducted."

"But the calm and temperate manner in which the Provincial Medical and Surgical Association has entered upon this great work, has done much to counteract this evil; and at the anniversary meeting, which will shortly be held in York, we are informed that the 'Reform Committee,' which it had previously appointed, will be prepared with a report, to which members are requested to give a careful perusal, before they make up their minds as to the course which the association should pursue in endeavouring to obtain an improved system of medical polity. Whatever course that may be, the spirit which has hitherto characterized its proceedings in reference to this subject, entitles it to the confidence and respect of every member of the profession, and holds out strong encouragement to believe in the ultimate success of its exertions."

"At the meeting in York also, a proposition will be submitted, to the effect that every member shall pay 5s. in aid of the 'Benevolent Fund,' in addition to the ordinary subscription. This would of course affect all the members of this branch,

who are members of the parent association also, and your council feel called upon to remind you of this fact, before such a resolution is carried into effect."

"Before closing this report, your council wish to notice, in terms of high commendation, the efforts which have been made to establish a sea-bathing infirmary, for the poor of this and the neighbouring counties. Such an institution would constitute an important and valuable adjunct to our local medical charities—for not only would their funds be relieved from the burthen of dispensing large quantities of medicine to a numerous class of patients, without any commensurate advantage to the cases themselves; but it would also enable us effectually to relieve hundreds of our fellow-creatures, who are at present compelled to drag out a miserable existence for want of that health-creating stimulus which sea-air and sea-bathing are alone capable of affording, and which no course of medicine, however judiciously prescribed and administered, is at all calculated to supersede. Your council, therefore, would earnestly entreat every member of this association to exert his utmost influence to further this philanthropic undertaking—for they feel assured that there is not a village or town in this district, in which such an institution may not be made one of the greatest blessings to many. It has been a source of regret to them, that no practical good should have hitherto resulted from the highly respectable and influential meeting which was held some time ago in Manchester; and it is to be feared that the neglect of fixing upon some convenient site may have, for a while, defeated its benevolent object. It is hoped, however, that the individuals who then interested themselves, will not relax in their efforts, confident as they are, that success must ultimately reward them."

The report was unanimously adopted.

Dr. Kendrick of Warrington was elected President, Dr. Lyon of Manchester, and J. M. Banner, Esq. of Liverpool, Vice-Presidents, and Messrs. Sharp and Hardy, General Secretaries for the ensuing year.

It was then agreed that a special meeting of the council shall be called on the last Thursday in September, for the purpose of making arrangements for the better carrying out of the scientific objects of the association.

Dr. Jeffreys, in moving the resolution relative to the benevolent fund, said, the question involved in it was a subject of great importance to the medical profession, and he was sure that if any gentleman would take the trouble to put himself in possession of the facts, or had they bestowed upon the subject the labour he had done, they would come to the same conclusion he had, that the proposal itself was an act of injustice. In the years 1833 and 34, a great stir had been made about the subject, which was introduced at a meeting held at Birmingham. He was at that time placed at the head of the committee, an appointment which had cost him great labour, as he had to open a correspondence with various members of the association in the army and navy, York, Glasgow, and other places. In the whole, he could not have written less than fifty letters on the subject. Various committees were at that time formed, and a number of circulars were sent from Cheltenham to Liverpool, to be issued amongst the medical profes-

* See Report of the Provincial Medical and Surgical Association.

sion in that neighbourhood. He had taken the trouble to re-write that circular, and, as he understood, in so doing had given great umbrage. The end of the matter was, that there were no subscribers to the fund resident in Liverpool, but Dr. Scott and himself. At a late meeting on the subject, the idea of a compulsory subscription was generally opposed, and it was pretty clearly the opinion of all present, that if the contemplated five shillings were added to the amount of the general subscription, a great number of the members would withdraw their subscriptions from the parent society altogether. He therefore moved the resolution as follows:—

“That this branch association highly disapprove of the ‘resolution proposed by Dr. Cowan of Reading, to make it compulsory upon every associate to subscribe five shillings per annum to the benevolent fund,’ in addition to the present annual subscription of one guinea, for general purposes;’ inasmuch as such compulsory payment would be an act of injustice towards those members who already subscribe to other institutions having similar objects, and ultimately prove injurious to the best interests of the association itself.”

Dr. Kendrick seconded the resolution. He perfectly concurred with everything Dr. Jeffreys had said, and was convinced, from experience, that nothing was more calculated to injure the whole association than any compulsory measure of this kind. He was not sure that the benevolent fund was calculated to do all the good ascribed to it, and therefore should second the motion.

Mr. Hardy observed, that the amount proposed to be subscribed was in itself trifling, but it was to be given for a special object, not contemplated in the first formation of the association, and he decidedly objected to this compulsory increase of subscription; at present this (the Newton) branch voluntary paid its own local expenses, and thought it more honourable to do so, than to deduct three shillings and sixpence from each guinea for this purpose, as was done by other branches. He believed it would be less objectionable if these deductions were applied to the benevolent fund, and if he could attend the meeting at York, he would certainly recommend this course to be adopted, in preference to any increase of subscription, which he was convinced would have the effect of diminishing the number of members considerably. Indeed, if a benevolent fund were to be maintained in connexion with the association, he could not see why a proportionate amount of its surplus income should not be annually appropriated to it.

The resolution was unanimously adopted.

Dr. Holme objected to the allowances made to branch associations, and he also thought that the benevolent fund ought not to be supported by compulsory subscription. He concluded his remarks by moving the following resolution:—

“That this branch of the Provincial Medical and Surgical Association strongly deprecates the principle on which its branches are allowed a deduction from the annual subscription of one guinea towards their own local expenses, and is, moreover, of opinion, that the regulation permitting such deduction ought to be rescinded.”

Mr. Banner expressed his concurrence in the propriety of the resolution, which he seconded. It was unanimously carried.

Dr. Baird, having vacated the chair, proceeded to read a paper on *Delirium Tremens*. After some prefatory remarks, he stated, that in the year 1834, when he was physician to the Liverpool Lunatic Asylum, two cases of delirium tremens died suddenly after a fit of screaming: one was under his own care, the other under the care of another physician of the infirmary. He observed, that as there was no general rule of treatment established for this disease, and as the governor, Mr. Owen, stated that several such occurrences had taken place under his predecessor's superintendence, he was induced to try, in various proportions, a combination of the more powerful remedies which had been generally recommended, and occasionally found to be successful, in order to cut short the disease, and prevent a recurrence of similar catastrophes. With this view he gave calomel, opium, and tartarized antimony, in various proportions, generally in doses of one grain and a half of the former, and one seventh of a grain of each of the latter, which he repeated every hour for five or six hours, and afterwards, at longer intervals, assisting them by croton oil, or castor oil, or the infusion of senna and gentian, supporting the power of life by ammonia, æther, and camphor, and in very exhausted habits allowing porter, but forbidding, in strong terms, a continuance of the accustomed stimulus. By this plan of treatment he was enabled to cut short the disease and produce convalescence in the space of eight, ten, or twelve hours, in upwards of fifty cases, since the year 1834. He then observed, that all the cases were in the last or violent stage of the malady, and detailed the symptoms as they appeared to him, as well as the circumstances of two cases, which he denominated exceptions. One, a robust, middle-aged man, who had been three days ill before seen, and just come out of a fit, whose pulse was imperceptible, and on whom medicine had no effect. The other had been the subject of several previous attacks, and having suppressed, by violent measures, a discharge from his legs, he fell into a comatose state, out of which he could not be recovered. The Doctor then proceeded to observe, that he had intended to have stopped here, but when he found that it was the practice of the council of the Medico-Chirurgical Society of London not to receive any case to which no remarks were appended, he thought he could not do better than follow the suggestions of the council of a society so long and so justly celebrated for the many valuable communications which its members have furnished to the profession. He would, therefore, by tracing the origin and progress of the symptoms, and from the effect of the remedies, attempt to deduce some idea or explanation of the cause of a disease, upon which all authorities agreed in opinion that the appearances on dissection did not afford such information as would tend to remove the obscurity which continues to hang over the nature of the morbid processes. He then detailed the progressive steps of the drunkard from the taking of the first glass of spirituous liquor to the final outbreak of the malady; and also the symptoms which indicated a progressive increase of disorder in the mucous membrane of the stomach, bowels, and biliary system. He canvassed the views of the different authorities who have written upon the subject, some of who had seen the disease to arise from other cause

than drunkenness. He adduced the opinion of Dr. Craigie and other pathologists, to prove that pain in the irritated or disordered state of the mucous membrane of the digestive organs was never felt in proportion to the degree of irritation, and that irritations produced by articles of food and drink, and by morbid and unnatural secretions, without giving rise to pain in the course of the canal, produce in various remote organs unusual sensations and phenomena. He quoted from Mr. Jennings's report upon the chemistry of the blood, to show that the sanguineous, nervous, and digestive systems may be, and are frequently, all affected at the same time and in the same person; and that no one system can be long disordered without inducing disorder in others: and to decide which system is primarily or secondarily affected, is, at once, the most important and most difficult problem the medical practitioner is called upon to solve. He then proved by a survey of all the cases which he had treated, and from analogous cases, that the nervous and cerebral symptoms did not begin to subside until the bowels began to be relieved of their dark-coloured and offensive contents, and thence inferred that the effects of the excessive and continued use of spirituous liquors was, first to induce a morbid condition of the nervous membrane of the stomach, bowels, and biliary system, and that the nervous and cerebral affections were only gradually reduced by the long continuance in the use of the stimulus. He combated the idea of the disease being of an inflammatory nature, but had met with cases complicated with inflammation of the lungs. He believed it to be essentially a disease of irritation, because it may continue for some time, subside, and again occur, without leaving any visible organic change, which inflammation would not do,—because the loss of blood is generally fatal in this disease, and does good in inflammation; and because dissection does not show the usual results of inflammation, but generally morbid appearances in the biliary and digestive apparatus. Dr. Baird then took the opportunity of observing upon an opinion which, he said, was pretty generally entertained by the public and the profession, and by several authorities who have written upon the subject,—that the stimulus which has produced the disease should not be withdrawn, but continued during the treatment. In refutation of this opinion, he brought forward the facts of the very rapid and satisfactory manner in which the cases recovered in the asylum, where the stimulus was wholly withdrawn, and where only porter was allowed in a few cases; and also the circumstances of a case which he attended with Mr. Jorie of Liverpool, where the plan of treatment which he had recommended failed, in consequence of the use of spirituous liquors being continued; for, upon the same plan of treatment being again adopted without the stimulus, a perfect state of convalescence in less than twelve hours was the result. He stated that he was in possession of the facts of various other cases to prove his views, and concluded with a hope that the plan of treatment might be as successful in the hands of the members as it had proved in his, so that a general rule of treatment might be established in at least one of the diseases which have arisen to afflict humanity.

Mr. Banner of Liverpool stated that he agreed generally with the principles and views de-

tailed by Dr. Baird, and also with the plan of treatment which he advocates. He had always found great advantage from due attention being paid to the state of the bowels. There were two points upon which the paper was deficient, the moral treatment and the subject of restraint, which he presumed had been adopted, the cases being in an asylum. He had derived advantage from the suggestions of a medical friend from Dublin, who said he had discovered that patients in this disease had a partiality for one individual in a family, through whom the mind of the patient might be judiciously operated upon, and he had always found the greatest possible good to arise from entrusting the moral management to this particular individual. With reference to restraint, he had no doubt that violent cases, in their struggles to get free, had frequently died.

Dr. Baird, in reply, said, he could not see the slightest possible chance of any good to be expected from Mr. Banner's moral view. According to his experience, the patients were generally suspicious of every person, and rather obstinate if opposed, and the best way to get them to take medicine, or to do what was wished for, was to do the very opposite. As to restraint, he was glad that Mr. Banner had remarked upon it, because it gave him an opportunity of stating to the members, that it had been his practice to use as little restraint as possible in the cases of insanity, and he had forbidden it altogether in the cases of delirium tremens.

Mr. Nottingham, formerly house-surgeon to the Liverpool Infirmary, begged to offer a few remarks upon the appearances on dissection; in several cases which he had had an opportunity of inspecting, he found the brain in general paler than natural, and no turgescence of the vessels, the lining membrane of the alimentary canal in a state of congestion. In one which died suddenly when under restraint, a blood-vessel was found to be ruptured internally.

The thanks of the meeting were unanimously voted to Dr. Baird for his excellent essay, which he was requested to forward for publication in the Transactions of the Association.

Dr. Baird also communicated an interesting case of purpura hæmorrhagica, which had occurred to him when physician to the Liverpool Dispensary in Church Street.

A strong able able-bodied porter, in the prime of life, having tapped a cask of new rum, drank of it by means of a straw, until he fell down insensible on the quay. Two or three days afterwards he became covered with small purple spots, and finally a discharge of blood took place from all the outlets of the body, nose, eyes, ears, mouth, navel, bladder, and intestines, and the slightest bruise produced instantaneous ecchymosis. He had been bled, taken acids in solution of sulphate of magnesia, calomel, and opium, before Dr. Baird saw him, without any mitigation of the symptoms. The blood did not separate into its component parts, but remained like a mass of tremulous jelly. Dr. Baird ordered him ten grains of the carbonate of ammonia every two or three hours, in camphor mixture, and on the following day the discharge of blood had entirely ceased, and he rapidly got well. Though the carbonate of ammonia had produced such wonderful effects in this case, it appeared that this salt was capable of producing a

contrary and apparently poisonous effect. He read an extract from Brande's Dictionary of *Materia Medica*, in which there is reported the case of a young man (quoted by Dr. Christison from Huxham on Fevers) who had acquired the strange habit of chewing this salt. He was seized with hæmorrhage from the nose, gums, and intestines; his teeth dropped out; wasting and hectic fever ensued; and although he abandoned the poisonous habit, he died of extreme exhaustion, after lingering several months. These two cases were conflicting, and it was not easy to reconcile them. It was true, they had no evidence as to the precise condition of the blood in the latter case, but, so far as his experience went, he had always found that the blood did not separate in genuine cases of purpura,—a statement which Dr. Kendrick and others confirmed.

Dr. Jeffreys stated that he continued to have the same good opinion of the properties of the new styptic "*Matico*" as he had last year, and that he hoped soon to have it in his power to forward to his medical friends genuine specimens of that valuable herb.

Dr. Kendrick said he had last year taken up, perhaps, too much of their time by the introduction of questions arising out of small-pox and vaccination. He had since furnished the members of the Branch Association with a list of queries, and he should now be happy if any gentleman had any remarks to make, or question to ask, relative to those queries. There was one thing he wished particularly to point out—the necessity of ascertaining, with some degree of accuracy, the cause of the discordancy in the reports of fatal cases of small-pox occurring after vaccination. The army reports calculated them at 12 per cent.; Dr. Gregory first at 10, and now at 7; Rouchoux at 1 per cent.; Villeneuve at 1 in 61; the Rev. Edward Sibson, the incumbent of Ashton, who had taken great pains to come to an accurate calculation of what had occurred in his own district, stated that the number of deaths did not average more than one per cent. According to his (Dr. K.'s) own experience, only one in two hundred and fifty terminated fatally. This was a very material difference, and he was anxious to know to what cause it was to be attributed, for if such reports were not founded in truth, they did great injury to the cause of vaccination with the public. The 1st query was, Were not a number of spurious cases registered as genuine? 2nd. Was there anything in the particular locality in which those cases occurred? Next, did they arise from the severity of the prevailing epidemic? Next, did they arise from any peculiarity of constitution in the individuals where the disease proved fatal? Another and more important question was, did the fatal consequences arise from any peculiarity in the mode of treatment? He had heard of a number of cases at a distance, in which the event had proved fatal, and he had observed in all of them that one mode of treatment had been adopted—the free evacuation of blood from the arm at the commencement of the disease, arising probably from the severity of the delirium with which the eruptive fever was attended, by which the strength of the patients was so diminished as not to carry them safely through the disease. It was his opinion that the delirium attendant upon modified small-pox was that of cerebral excitement—not cerebral inflammation—and that, therefore, bleed-

ing was not necessary, but perhaps injurious. The delirium in these cases was distinguishable,—first, by its early appearances; second, its occasional violence; and thirdly, by the peculiar fœtor of the breath, which was so remarkable as not to be mistaken.

Shortly after three o'clock the members present sat down to a dinner embracing every luxury of the season. On the withdrawal of the cloth, the usual loyal toasts were drank with the usual honours. "Success to the Newton branch of the Association, and the health of Dr. Kendrick, its founder;" "Dr. Hastings, the founder of the Parent Association;" "Mr. McCulloch, the late President;" "the Chairman and Vice-Chairman," together with hearty good wishes for the success of the profession in Liverpool and Manchester, together with some other toasts, equally well adapted to the occasion, were afterwards drank. The company separated shortly after six o'clock.

ON THE
PHYSICAL ALTERATIONS OF THE BLOOD
AND
ANIMAL FLUIDS IN DISEASE.

By M. ANDRAL.

No. III.

(Continued from p. 250.)

Cerebral congestion and apoplexy.

THE term cerebral congestion has usually been employed by medical men to designate a peculiar derangement of the brain, with the real nature of which we are little acquainted, but which, in its early symptoms of headache, vertigo, and tendency to epistaxis, bears some analogy to the premonitory symptoms of typhoid fever. It is curious that the same analogy holds good with respect to the blood.

In fifteen cases of cerebral congestion, the quantity of fibrin was frequently unchanged; but in several others it was considerably diminished; the maximum was 3·7; the minimum, 1·6. The latter case occurred in the person of an athletic porter, who was much addicted to spirituous drinks. On the other hand, the fibrin amounted to 3·5 in a female of excessively weak and delicate constitution. As to any relation between the degree of the congestion and the amount of fibrin, it is worthy of remark, that the minimum of fibrin was found in the case where the symptoms of congestion were the most intense.

In six cases the globules did not undergo any change; in six cases they were diminished; in six increased. The porter, whose case has been already alluded to, furnished 132·9 in globules; of two other patients who gave, respectively, 88·3 and 88·6 of globules; one was the weakly female noticed above, the other a man suffering under the influence of lead. The solid parts of the serum never descended below their normal quantity, the maximum being 104·8. The serum varied from 740·2 to 820·3. Some of the fifteen patients were bled a second and a third time, but the quantity of fibrin was not perceptibly altered, while the globules followed the usual law of decrement.

Seven patients, labouring under apoplexy, were submitted to observation; they were bled eight times. The results obtained in some of these cases (says M. Andral) were quite unexpected, yet consistent with what had been observed in cerebral congestion. The commonest change in the blood was a diminution of the fibrin with an augmentation of the globules.

The first patient examined, for the purpose of ascertaining the state of the blood, was a woman, fifty-nine years of age, who had been seized with a very violent attack of apoplexy two days before. The quantity of fibrin had fallen to 1.9; but the globules had risen to 175.5; the solid parts of the serum were unchanged (80.3); the fluid was much diminished, being 742.3. We were a good deal surprised at so remarkable an increase of the globules. After the third day, the patient began to come a little to herself; she was now bled a second time, and a considerable change was discovered in the constituents of the blood. The fibrin had increased to 3.5; and the globules, though still in excess, (137.7,) had diminished. In this case the very great difference of proportion between the fibrin and globules, could not have been produced by the mere fact of some blood having been *lost* in the brain; for the loss of blood could not be abundant enough to cause so great a change, and the facts already cited show that hæmorrhage always causes a diminished quantity of globules, but does not act with the same certainty in diminishing the fibrin. Hence we are forced to ask, whether the want of due proportion between the fibrin and globules, instead of being an effect of the apoplectic attack, may not have given rise to it, the more especially as we know that the blood has a great tendency to escape from its vessels, when deprived of its normal quantity of fibrin.

In the second case, where the attack was not so severe as the preceding one, the patient was bled on the day of attack; the fibrin was 2.2; the globules 135.9.

In the third case, the patient was bled three days after the attack; here, also, was the fibrin diminished (2.6); the globules, on the contrary, were increased to 140.6.

In the fourth and fifth cases, the patients were bled at a much later period of the disease (eight days in one, fifteen in another); the quantity of fibrin was still small, (2.0, 2.1,) but, for the first time, that of the globules also was below the average.

In the sixth case, the fibrin had ascended to 3.2, while the globules, on the contrary, were only 123.4. But this patient had been already bled and leeches; five days had elapsed since the attack, and as the sum of the globules amounted, under these circumstances, and at so late a period, to 123, we may safely conclude that they were much higher at the moment of attack.

From the foregoing facts it is evident that the chief characteristic of apoplexy is a tendency to increase of globules, with diminution of fibrin.

In the seventh case, however, the composition of the blood underwent little or no change; the fibrin, instead of being diminished, was slightly augmented, 3.9; the globules marked 126.5; yet this was a very severe case, and the patient was bled on the second day. This certainly is an exceptional, or rather negative case, but it cannot

destroy the value of the facts which have been mentioned; perhaps the slight augmentation of fibrin may have coincided with a commencement of inflammatory action round the effused clot. In the next section will be noticed those diseases in which the blood globules are spontaneously diminished.

ON HIPPURIC ACID AND ITS TESTS.

By ALEXANDER URE, M.D., A.M.

READ THE 9TH OF JUNE, 1841.

In a paper communicated by me to the Medico-Chirurgical Society in the month of January last, it was pointed out, for the first time, that when a certain portion of benzoic acid, or of a soluble benzoic salt, is introduced into the human stomach, a remarkable change takes place in its passage through the kidney. The urine voided in the course of a couple of hours after its ingestion, amounting usually to five or six ounces, will be found, upon adding a twelfth part of muriatic acid, to yield by-and-bye a copious precipitate of beautiful rose-pink acicular crystals. These, when examined by the microscope, exhibit the form of a four-sided prism, terminated by a dihedral summit. Now this is precisely the crystalline character of an acid peculiar to the urine of the horse, cow, and other graminivorous animals, and to which, for that reason, Liebig has assigned the name of *hippuric*.

By this singular interchange of elements, capable of being effected only by the aid of vital chemistry, we have an organic product, uric acid, containing eight atoms of azote and ten of carbon, replaced by one, hippuric acid, containing no less than eighteen of carbon, and only two of azote! In pursuing the above investigation a step further, it was ascertained that no trace whatever of uric acid or any of its salts could be discovered in the urine in question. In point of fact, it had been wholly superseded by the other acid.

The important circumstance connected with this research, as bearing upon medical practice, is, that the salts which this new acid forms with the ordinary bases occurring in the animal fluids, as soda, ammonia, and potash, are all of easy solubility. Thus hippurate of soda requires about two parts of water, at 60 deg. Fahr. to dissolve it, whereas the corresponding uric salt, which constitutes, as is well known, the gouty concretions or chalk stones, is acknowledged to be nearly as insoluble as uric acid; it requires at least 4000 parts of water to dissolve one. Hippurate of ammonia again is but little less soluble than hippurate of soda, while the urate of ammonia will only dissolve to the amount of 1-480th part. Hippurate of lime, the least soluble of these salts examined by me, requires eighteen parts of water to dissolve one.

The application of the above principle has proved of material benefit in the treatment of certain unhealthy conditions of the urine, occurring in subjects of a calculous or gouty diathesis; since it enables the practitioner to obviate entirely the various depositions resulting from excess of uric acid, the fruitful source of that most distressing

malady, stone in the bladder; as also to control and prevent the formation of the so called taphaceous concretions or chalk-stones, which occasion so much inconvenience, deformity, and pain to individuals labouring under gout.

By judicious exhibition of the benzoic acid, or, according to particular circumstances of a benzoic salt, that is to say, apportioning the dose to the state of the renal secretion, best previously ascertained by analysis, we can fulfil the desired indication with unerring precision, and that, as shown in the above paper, without any risk of affecting the general health, or of irritating the urinary organs.

It is to be kept in mind that this plan of treatment by no means precludes the adoption of other suitable remedial measures. Of course certain rules of diet must be observed, which there is no necessity for referring to here. It would be equally irrelevant to occupy your time with the details of cases, several of which have lately come under my notice, and go to corroborate the statements above made.

As benzoic acid is apt to irritate the fauces, unless administered in a liquid state, and as it needs a large quantity of water to dissolve it, it will be found expedient to give it along with phosphate or biborate of soda; since they enhance its solubility without abating its specific power. Thus, four parts, by weight, of the former, or one part and a half of the latter salt, will enable a comparatively small proportion of distilled water to take up one of the acid. This difficulty, as is obvious, does not apply to the benzoate of ammonia or of potash.

Phosphate of soda not only serves to hold benzoic acid, but likewise hippuric acid, in solution; and this is a point of some consequence, seeing that any excess of the latter acid, accidentally present in the urine, will remain dissolved by means of the neutral phosphate of soda, or the triple phosphate of soda and ammonia (microcosmic salt) naturally existing in that secretion. These phosphates, however, produce a very different effect upon the uric acid, inasmuch as they promptly convert it into urate of soda, by depriving the salt of one-half of its base, and thereby transforming it into biphosphate. This fact, which recently presented itself to me in the course of some experiments, and which has not been heretofore noticed by any chemical authority, seems to furnish a simple and rational explanation of the mode of formation of urate of soda, the basis of chalk-stones. Hence, whenever the oxidizing process of the kidney is proceeding with such energy as to supply a superabundance of soluble phosphates on the one hand, and of uric acid on the other, there must inevitably result an excess of urate of soda.

Having premised the above observations with the mere view of pointing out what appears to cast some new light upon the importance of benzoic acid and its compounds, as therapeutical agents in virtue of their power of generating hippuric acid, it has appeared to me proper to indicate the distinguishing features of these two acids, as some objections have been started touching the difficulty of discriminating the one from the other. For convenience sake, the leading peculiarities have been arranged in collateral order, as follows:—

BENZOIC ACID

Crystallizes in hexagonal needles, or in white, diaphanous, pearly, flexible laminae.

Is soluble in two parts of ether.

Is not changed by dilute nitric acid.

Heated with three times its weight of hydrate of lime generates simply benzoile.

BENZOATE OF AMMONIA,

On being exposed to a strong heat, melts and flies off in benzoic acid fumes, without leaving any appreciable residuum.

BENZOATE OF POTASH

Burns without emitting any particular aromatic odour.

HIPPURIC ACID *

Crystallizes in four-sided prisms with di-hedral summits.

Is very sparingly soluble in ether.

Treated with dilute nitric acid, and evaporated to dryness, produces, on the addition of ammonia, a beautiful purple colour.

Heated with three times its weight of hydrate of lime disengages a quantity of ammonia.

HIPPURATE OF AMMONIA,

Exposed to heat, melts and assumes a rose-red colour, forming a reddish acid; which being dissolved in water and evaporated, affords red crystals, resembling hippuric acid in their properties.

HIPPURATE OF POTASH,

Heated so as to undergo decomposition, exhales the odour of bitter almonds.

On the whole, sulphuric ether furnishes the readiest test for distinguishing these two acids, from the easy solubility of the one, and the difficult solubility of the other in that menstruum.—*Pharmac. Transactions*, No. I.

* The verifications were all made with hippuric acid derived from the human subject.

GENERAL ELECTION.

DEPUTATIONS of medical men have waited on Mr. Sheil, the member for Dungarvon; Mr. J. O'Connell, member for Kilkenny; and on Colonel Damer, member for Portarlington. The honourable members all declared themselves highly favourable to medical reform.—*Dub. Med. Press*.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, July 9, 1841.—John William Griffith, Thomas Brugis Flower, Henry Cox Goodlake, Peter Leigh, Charles Osmond Woodford, Thomas Osburne, John Oliver Taylor, Henry Charles Stewart, William Lane, William Moorhead, Thomas Stack.

Printed by THOMAS ISOTSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JOSIAH PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMSEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, July 16, 1841.

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CLINICAL LECTURES

IN COURSE OF DELIVERY DURING THE PRE-
SENT SESSION,

AT

GUY'S HOSPITAL.

By JOHN MORGAN, Esq.

(Published with permission of the Lecturer.)

LECT. VI.—*On depression and solution of cataract—care of entropion by operation—Fistula lachrymalis.*

GENTLEMEN,—In my last lecture I described to you the operation for the removal of cataract by extraction, but it is not to every case of cataract that this method is applicable, for whenever the anterior chamber is of very small size, or the pupil adherent to the capsule of the lens, and under certain other circumstances, the operation by extraction may be not only extremely difficult to perform, but liable also to be followed by dangerous results. In all such cases we must have recourse either to the method of depression, or solution. I shall therefore now describe to you, first, the operation by depression.

Now, as to the position in which you are to place your patient, this, with the mode of holding the head, and separating the eyelids, is precisely the same as in operating for extraction, except that it is not so necessary to avoid making pressure on the globe in this, as in the other case; indeed moderate pressure may be made, in order more effectually to steady it.

You will now, having previously applied belladonna to the eyebrow to dilate the pupillary aperture, take a small straight cataract needle, spear-pointed, and without cutting sides, (those generally made are too long, and too large,) such as I always use, you see, on the table before you. Hold the handle of your instrument not too stiffly between your fore-finger and thumb, or between the thumb and fore and middle fingers, depress the lower lid as in the operation for extraction, and pass the point of the needle through the sclerotic at the distance of one line from its junction with the cornea, just below the transverse diameter of the eye. Now, in giving you directions for the performance of the operation for extraction, I told you there was to be nothing like a sudden jerk in entering the point of the knife, but in passing the needle through the sclerotic it is as well to enter it rather sharply, and before you do so, I would recommend you to touch the surface of the eye two or three times with the handle of your instrument, in order to diminish its motion at the moment the point is introduced. Now, I have told you to puncture the globe at the distance of one line from the circumference of the cornea, as

this is the rule generally given, but I generally find it better to take double that distance, or nearly so, because then, if there is much rolling of the organ, there is less danger of wounding the iris. You first carry the point rather backwards towards the centre of the eye, and as soon as it has entered, alter its course to a horizontal direction, parallel with the plane of the iris; in order to introduce it between the posterior surface of that tunic, and the anterior part of the capsule of the lens, you continue passing it onwards, until you can see that it has crossed rather beyond the centre of the pupil; and it is always advisable to bear in mind the exact length of your needle, in order to observe accurately the distance on your instrument from the point of puncture to the pupil, or you may be surprised, while operating, that you do not see the needle as soon as you expect, and may thus be disconcerted without cause.

When you can see the needle clearly in the pupil, as most of you can now do, in the eye of the subject before you, you have next to direct the point against the fore part of the lens, above its transverse diameter, and then press it downwards and backwards, into the vitreous humor: be careful not to withdraw the needle too quickly, or immediately, or perhaps the lens may rise again, and when, after half a minute or so, you do withdraw it, it must be done gently and cautiously, keeping the instrument precisely in the same direction as it entered; the lens will sometimes rise two or three times, or oftener, and must of course be as often depressed; sometimes it will not rise again for an hour or so, after the operation, or even much longer, as in a case now in the Eye Infirmary of this hospital, where, you may remember, it remained in the situation to which I had depressed it for more than four-and-twenty hours, and then regained its original position. Now, some of you may possibly suppose, that if your needle is passed far and wide behind the iris, either by mistake, or to avoid wounding this important part, it would not much matter whether it went behind the lens or not, in the first instance, provided the error were rectified in the subsequent steps of the operation; but you are to understand, that if it passed freely behind the crystalline, it would so break up the cells of the vitreous humor, as to weaken their power of resistance in keeping down the depressed and opaque body afterwards, which would therefore, in all probability, rise again, and your operation would be unsuccessful.

It may appear at first, gentlemen, that this operation is an easy, and a comparatively trifling one, but you will find that it is as liable to be followed by acute inflammation of the iris and sclerotic as cases where extraction has been performed; and as far as my experience has gone, I should say that the occurrence of acute tritis after the operation for depression, is almost invariably followed by complete destruction of the eye, as an organ

of vision. You will be especially careful, therefore, during your operation, not to leave the lens depressed against the ciliary processes, iris, or retina, for this would be not only an exciting cause of iritis; but in the latter case you would have a further danger of amaurosis from the pressure made on the retina. When iritis supervenes, it usually does so within a few hours after the operation, being ushered in by fever and pain in the globe, with its other concomitant symptoms. Now if, under such circumstances, you find that the lens remains depressed, as you left it on concluding the operation, you may be almost sure that its pressure upon some of the parts I have mentioned is doing mischief, and it must, therefore, be directly raised again by a second introduction of the needle, or the eye will be inevitably lost; this generally gives almost immediate relief, which is, indeed, sometimes afforded by a spontaneous rising of the opaque body during the attack; and it may be remarked, that should the pressure of the lens prove to be the cause of iritis, the case will be far more favourable, provided that cause be immediately removed, than if the disease had arisen from the injury necessarily occasioned to other parts involved in the operation. I need hardly say that depletion, and the ordinary remedies for iritis, which, of course, you are all by this time acquainted with, must be promptly had recourse to, and continued till the disease has entirely disappeared. In one case, now in our infirmary, you will recollect that when very acute iritis had come on, I replaced the lens twenty-four hours after I had operated; in this case the cataract had moved after I had depressed it, and was found pushing its way through the pupil, and pressed against the posterior surface of the iris. Well, you saw that after I had taken off that pressure, all inflammatory symptoms speedily subsided, and the patient did perfectly well, having recovered his sight by a subsequent operation.

I have more than once performed a modification of the operation for depression, which I believe to be new; it is one applicable only to those cases of cataract which occur in combination with disease of the vitreous humor. The first case in which I adopted the plan to which I allude, was that of a lady, a patient of Mr. King, your demonstrator of morbid anatomy, who was the subject not only of cataract, but was also affected by synchysis, a disease which consists, as you know, in a melting down, or softening, of the vitreous humor, so that the consistence of this part becomes almost fluid. Now here, of course, extraction was out of the question, for a section of the cornea would have allowed the exit of, perhaps, the whole of the contents of the globe. I tried the operation for depression, but found that in consequence of the very great change which had taken place in the vitreous humor, the lens, after repeated attempts to keep it depressed, instantly rose to its former place. I then attempted the operation for solution, but as the cataract was hard, and apparently insoluble, no benefit was derived from this procedure. Well, gentlemen, as the ordinary means of relief had failed, or were impracticable, and as I could not, by the plan which I proposed to myself, make bad worse, I determined to try a new method of practice. I thought that although while the parts were in situ, the buoyant power of the vitreous humor might, in its more fluid state,

defeat the desired object of the operation in the manner I have described, yet, that it might be possible, by tapping the globe through the sclerotic, so as to evacuate a portion of that humor sufficient to sink the lens below the axis of vision, I thought, I say, that by such a mode of proceeding, a permanent depression of the cataract might possibly be effected, by the newly-formed secretion collecting more readily above it, than immediately below, in consequence of the presence of the lens in the lower part of the humor.

The operation I performed was as follows:—the patient was held as in the operation for depression; I then passed a large-sized needle with cutting sides through the sclerotic, about three lines distant from its junction with the cornea, a little below its transverse diameter, and as soon as the point had passed about an eighth of an inch into the globe, I drew its cutting edges vertically downwards, making in this way an incision, parallel with the corneal line of attachment of the sclerotic, and of about a quarter of an inch in length; a small portion of vitreous humor now escaped, but not sufficient for my purpose; I therefore made gentle pressure upon the globe, until enough had been pressed out to sink the lens below the pupil; I think nearly one-fourth of the humor must have escaped: after the operation, a piece of linen kept constantly moist was applied over the lids—the head and shoulders kept raised, and the patient placed in a darkened apartment; on the following day, the globe had nearly recovered its size and form, the wound was uninfamed, and no more uneasiness or pain was complained of, than what usually follows an operation for depression; the pupillary aperture was perfectly clear. No subsequent excess of inflammation followed, the wound in the sclerotic healed kindly, the lens remained depressed, the globe recovered its natural appearance, and vision was so far restored, that the patient could read moderate-sized print with the aid of glasses. I have since performed this operation twice; in one case with success, the other terminated unsatisfactorily: in both of these cases I used Beer's cataract knife, which answers the purpose better than the needle. Well, so much, gentlemen, for the operation for depression; we next come to that for solution. This operation is more especially applicable to cases of soft cataract, and your object in performing it will be, to bring the lens into contact with the aqueous humor, so that it may become dissolved, and afterwards absorbed; now this object may be effected, either by what is called an anterior or a posterior operation; before performing either, the pupil must be dilated freely by belladonna, and the eye being fixed as in the former cases, you will proceed in the following way:—If you perform the posterior operation, a needle, the same as that used for depression, is to be passed, as in that operation, through the sclerotic, between the iris and lens, to the centre of the pupil; if you perform the anterior, the instrument is to be carried to that point through the cornea, puncturing that tunic at about the distance of a line from its sclerotic margin, a little above or below its transverse diameter, though this is not very material. Now in the anterior operation, you must be very careful to avoid making even the least pressure on the globe, lest the aqueous humor should be forced out, and your needle brought into contact with the iris, the

pupil of which would instantly contract, and thus prevent a ready access to the diseased part behind it. In either case, whether you pass the needle before or behind the iris, you must direct its point very carefully to the centre of the anterior surface of the lens, and gently pressing it against its capsule, carry it by repeated motions backwards and forwards through that membrane, and the anterior layers of the lens, so as to bring the latter into contact with the aqueous humor by thus removing its covering, and lacerating its surface. But recollect, that you are to avoid making any pressure on the crystalline, which may occasion its displacement *backwards*; it is desirable to keep the body of the lens *in situ* till, after having cut it up, you can bring it *forwards*. Now and then you may meet with a case of what is called a milky cataract; in which, as soon as the capsule is punctured, the lens, converted into a whitish fluid, is poured into the anterior chamber; when this happens, of course, the needle is to be instantly withdrawn; in these cases the cataract usually becomes very soon absorbed, generally leaving an opaque capsule behind, which will probably require a second operation.

It frequently happens that several operations are necessary to insure the complete absorption of an opaque lens, and its capsule; in a second, or subsequent ones, you continue to cut up the remaining portion, and bring it, if possible, into the anterior chamber; and let me here caution you against making use of any violence which may bring an entire lens at once into that situation, for its pressure upon the anterior surface of the iris would, in all probability, give rise to inflammation of that tunic, and, moreover, the cornea might also suffer from the same cause. Considerable portions of a broken up lens may, however, be safely brought into the anterior chamber, but not the entire structure of its natural size, or nearly so; it is true that a lens thus dislocated, may in rare cases become absorbed without acting as an extraneous body, but there is always danger of iritis under such circumstances, and it is far better to avoid running any unnecessary risk. Now you must be very careful, in introducing and withdrawing your needle, not to wound the iris; but you need not fear you have done so, because the pupil may appear a little distorted upon the introduction of the needle; this will sometimes arise from previous adhesions, which are seen only on moving the lens, or perhaps the blade of the needle may be pressing on the pupil or iris, without having occasioned any solution of continuity; if the iris be really wounded, blood will most probably be effused into the anterior chamber, and tell you at once of your mistake. With regard to the immediate consequences of the anterior operation, you will generally find that comparatively little irritation follows it, and for the most part it is very successful if performed on proper subjects, but sometimes your object will not be accomplished; this will be the case when there is a hard central nucleus to a soft circumference; the latter you cut up, and it becomes absorbed, the former remains opaque; under these circumstances it is better to depress the remaining central portion of the lens in the ordinary way, than to push it into the anterior chamber in the hope of effecting its absorption, where it may produce irritation, without undergoing any alteration of structure; for

there is much less danger of causing pressure upon the iris or retina, in depressing a small round nucleus, than in treating a whole lens in the same manner. It is upon this principle that a combination of the two operations of solution and depression is sometimes found to be very useful in old people, and even in others, especially where there is danger of subsequent inflammation of an arthritic character, which is less liable to occur if the size of the lens is reduced, by cutting up before depression. The operation for solution is the only one applicable to cases of congenital cataract; it may be performed even as early as six weeks after birth, and it is desirable to perform it as early as possible, for children born blind acquire a constant rolling motion of the eye, which after a time becomes permanent, thus interfering with, or completely preventing the perfect performance of the functions of the organ after the operation, although, from the external appearances of the eye, you would suppose that the sight would be completely restored. You may perform either the anterior or posterior operations, precisely the same as in adults, but it is necessary to keep the child very steady, and to do this, you will require assistants to hold the arms and legs, as well as to fix the head, which must be done by one of them placing one hand on the top, while with the other he supports the chin, separating the fore finger and thumb, which he places like a crutch under it; another assistant is to keep the upper lid raised with a very small speculum; great care must be taken to avoid making violent pressure on the cranium, on account of its delicate structure at this period; you are of course to dilate the pupillary aperture by belladonna, and you will find that if the operation is well performed, inflammation to any serious extent will seldom or never follow. Several operations are often required, particularly when the capsule is tough, and thickened, and this you will therefore prepare the parents of the infant to expect. I have now, gentlemen, concluded my clinical observations on the subject of the operations for cataract, and shall next speak of *stetula lachrymalis*.

ON THE PHYSICAL ALTERATIONS OF THE BLOOD

AND

ANIMAL FLUIDS IN DISEASE.

By M. ANDRAL.

No. V.

(Continued from p. 317.)

Alterations of the blood by various fluids—Formation of the crust—Circumstances which favour or prevent its production—Physical properties of altered blood—Colour, solidity, viscosity, clots.

We have hitherto examined those alterations which affect the proportions of the component parts of the blood; but it is also necessary to examine the changes of quality as well as of proportions which these elements may undergo. The blood becomes altered, not only when the quantity and quality of its constituent parts are altered, but when there is superadded to it some

foreign substance or fluid. These are of two kinds: 1st, those analogous to certain healthy products of the body, as bile, urine, milk, &c.; 2nd, those which bear no such analogy, as pus, cancerous matter, &c.

Alterations of blood by the secretions.

1st Species. It has been commonly supposed that cases of this kind are common, but in reality they are very rare. Bile, urine, and milk, are the secretions, the presence of which in the blood is commonly admitted, and to which has been attributed the production of various disorders.

Bile.—We find a great deal said in books about the alteration of the blood by bile, and of the disorders thus occasioned; but the alteration has never been demonstrated by chemical analysis; nay, further, recent experiments have shown that bile never exists in the blood, but that what has been mistaken for it was one of its constituent elements, the green colouring matter; this becomes mixed with the serum, and occasions the yellow tinge of jaundice. By treating the serum with nitric acid, (when it contains this colouring principle,) we obtain a green precipitate, which consists of albumen combined with the green matter; in this way we can easily ascertain, at the bedside of the patient, whether or no the blood contains any of the elements of bile. M. Andral has examined the blood in a great many diseases where the presence of bile is supposed to exercise a certain influence, but never found any of the colouring matter except in jaundice.

Urine.—Like the bile, urine is never found in the blood, but we may find one of its elements, viz. urea. MM. Prevost and Dumas extirpated the kidneys of animals, and afterwards discovered large quantities of urea in the blood; hence we might *a priori* conclude that certain diseases which disturb the functions of the kidneys, i. e. prevent them from eliminating urea from the blood, give rise to an increased quantity of that substance in the vital fluid. This occurs in Bright's disease, in which Dr. Christison and others have found more or less urea in the blood. Ancient writers used to talk of urinary fevers, or, in other words, of fever excited by the presence of urine in the blood; but this idea arose from the superficial observation of certain febrile disorders, during which the perspiration gave out an urinous odour. These observations are totally unworthy of credit; if any diseases or disorders can be excited by the mixture of urine with the blood, they should manifest themselves in cases where an increased quantity of urea exists; but experience proves that the diseases which coincide with an increased proportion of urea in the blood, bear no resemblance whatever to the urinary fevers of the ancients; the same applies to bilious disorders; the green colouring matter is the only element of bile which finds its way into the blood, but none of the cases, in which this matter has been found in the blood, bear any resemblance to the bilious fevers of the ancients.

Milk.—During the early part of the present century much was written about milk fever, and many admit its existence even at the present day; but chemical analysis overturns these theories at once; milk is never found in the blood; one of its essential principles, caseum, it is said, has been discovered in the blood, but we cannot admit the

fact. Three centuries ago some cases were published of milky blood found in persons of either sex. M. Andral has examined most of these cases with great care and attention; not one occurred in a lying-in woman. Schenkius mentions a woman, not pregnant, whose blood appeared to be milky; Tulpus mentions a similar case, and several others are recorded in modern works. The serum is the part of the blood which presents the milky appearance that has deceived so many; it has been analysed by Trail, Caventou, and Christison, but they were unable to discover any of the constituent principles of milk. The white appearance depends on the presence of a fatty matter suspended in the serum, and forming with it a kind of emulsion; such is the opinion of Dr. Christison. M. Caventou attributes it to the presence of albumen, which has undergone some peculiar change.

The presence of these foreign principles in the blood may depend on the circumstance of the secretory organs not having eliminated them from the blood; this, again, may arise, 1st, from disease of the secreting organ; 2nd, from disease of the excretory canal; 3rd, from some disordered nervous influence, such as occurs in essential jaundice. But the principle may have been separated from the blood and again introduced, or it may accumulate in consequence of not being duly eliminated.

The *second species* of alteration depends on the presence of morbid products; these may, 1st, be formed in the blood; 2nd, be produced by the coats of the vessels, as pus in phlebitis; 3rd, be introduced by absorption. Again, the composition of the blood may be altered by the introduction of some new inorganic substance. M. Denis has found free ammonia in the blood; M. Bonnet, hydrosulphate of ammonia in some cases of dangerous fever; but we should not admit, unreservedly, such facts as these.

Pus.—Pus has been found in the blood under the following circumstances; 1st, in inflammation of the lining membrane of the heart or blood-vessels; 2nd, in inflammation of the other organs; 3rd, in cases of abscess, the pus being absorbed; 4th, in the middle of clots formed during life. The pus is found in various conditions; it may be mixed, more or less intimately, with the blood, changing its colour; sometimes it is deposited in isolated drops through the mass of blood. M. Piorry has found white granules, which he considers collections of pus, on the crust of the blood, in patients labouring under pneumonia. Finally, the pus may be collected in some quantity in the clots of the heart. When purulent matter has been thus mixed up with the blood, the latter becomes a poison; it loses its natural consistency, and is soft and friable.

Encephaloid matter.—The veins of patients who die of cancerous affections sometimes contain masses of a reddish gray colour, which bears the closest resemblance to encephaloid matter, and it has been asserted that the blood itself has undergone the cancerous degeneration. Is any portion of the vital fluid transformed into cancerous matter, or is the latter merely absorbed? The records of medical science do not contain a single case in which encephaloid matter has been found in the veins, without the presence of cancer in some other part of the body; and the veins which contain the matter are, commonly, those in the vicinity of the

part originally affected, or arise immediately from them. In cancer of the liver, we find the cava affected; in cancer of the kidney, the renal vein; in cancerous diseases of the pelvis, the iliacs and inferior cava; but it should be observed, that the cases of cancerous degeneration of the blood are much rarer than we might be led to suppose from the examples mentioned by authors, for various alterations of the blood have been frequently mistaken for absorption of cancerous matter.

We very rarely find in the blood any living animals. M. Della Chiaja, an Italian physician, discovered an entozoon, which he has named *polytoma sanguinis*. Treutler relates the case of a man, who, while bathing, lacerated a varicose vein in the leg; an organized body was discovered in one of his veins, which several authors, from the drawing given, consider as a worm, introduced from the external world.

Virus.—In certain cases, the properties of the blood are altered by the introduction of some deleterious principle, such as gases, poisons, &c.; animal virus, as that of glanders, malignant pustule, &c., may likewise infect the blood. When animals are overworked, their blood becomes altered, and if injected into the veins of other animals, it occasions the most dangerous disorders.

Of the crust.—The crust is composed of fibrin, which retains a certain quantity of globules and serum; we should examine its thickness, consistence, and transparency, and also take care to distinguish the perfect from the imperfect crust; the former is opaque, and of a yellowish white colour; the latter greenish, and a mere rudiment. M. Andral has sought for the existence of the crust in 1800 cases; we shall not follow the learned professor in so extensive an investigation, but merely cite the most important results.

In 12 cases of *acute amygdalitis* a perfect crust was found 9 times; 1 imperfect. *Bronchitis*, 123 bleedings; 35 perfect crust, 25 imperfect, 65 absent. The cases in which a perfect crust excited, were acute bronchitis with fever; the others, bronchitis without fever. *Colica pictorum*, 10 bleedings; 3 perfect crust, 7 absent. *Chlorosis*, 11 bleedings; 7 perfect crust, like that of rheumatism, 1 imperfect, 3 absent. From this we conclude, that the crust exists under very different circumstances, and that we must take into account not only the causes which favour or prevent its formation, but also the different elements of the diseases in which it may exist. *Asiatic cholera*, 6 bleedings, no crust. *Cerebral congestion*, 103 cases; 77 absent, 14 perfect, 12 rudimentary. *Pulmonary emphysema*, 36 cases; 26 absent, 10 perfect. *Pleuritic effusion*, 27 bleedings; 7 perfect, 9 imperfect, 11 absent. *Ague*, 32 cases; 27 absent, 5 present. *Typhoid fever*, 187 cases; 147 no trace of crust, 30 imperfect, 10 perfect: but in these the fever was complicated with some internal inflammation; hence we may affirm that the crust never exists in simple typhoid fever, and that its presence indicates some complication. *Apoplexy*, 22 cases; 2 perfect, 20 absent. *Encysted dropsy of ovary*, 4 cases; 3 absent, 1 present; in the latter the walls of the cyst were inflamed. *Hypertrophy of heart*, 72 cases; absent 61, present 11: to explain the latter, we should remember that many cases of hypertrophy are complicated with inflammation. *Bright's disease*, 6 cases; never

any crust: this, in addition to other reasons, tends to prove that the disease is not inflammatory. *Acute pleurisy*, 60 cases; 50 perfect crust. *Pneumonia*, 230 cases; 215 perfect, 15 imperfect. *Acute articular rheumatism*, 134 cases; 125 perfect, 5 imperfect, 4 absent; in one of the latter cases, the patient was bled when nearly well. *Chronic rheumatism*, 50 cases; 11 present, 39 absent. *Measles*, 11 cases; no crust. *Scarlatina*, 9 cases; no crust, except in one case, complicated with acute nephritis. *Small-pox*, 18 cases; 2 perfect, 16 absent. *Pulmonary tubercles*, 203 cases; 140 perfect, 50 absent, 13 imperfect.

Phenomena observed during the formation of the crust.

1st Period.—A few instants after its abstraction, the blood separates into two layers, one superficial, the other deep; this last is composed of the serum, the greater part of the globules, and a small portion of fibrin. The superficial layer is a transparent fluid, of a greenish colour, formed of serum, some globules, and of most of the fibrin, dissolved in the serum.

2nd Period.—The superficial layer, which was at first clear and fluid, gets thick like the coat of fat on the surface of soup; it solidifies gradually, and soon acquires a certain degree of consistency.

3rd Period.—During this period several changes take place in the size and form of the superficial layer. At first it covers the whole surface of the fluid, and gradually contracts from the edges towards the centre, and forms the perfect buffy coat. If we now compare the buff (or crust) with the clot, we shall find that it is the former which gives consistency to the latter. In a case of rheumatism, when the fibrin amounted to 9, the buffy coat contained $7\frac{1}{2}$, the clot $1\frac{1}{4}$; hence we perceive that the fibrin chiefly resides in the crust, and not in the clot.

Conditions necessary for the formation of the crust.

Some of these conditions depend on the composition of the blood, others are accessory. The essential condition is an increase of fibrin in proportion to the globules, and not a simple increase of the fibrin. When the blood contains an excessive quantity of fibrin, it coagulates slowly; thus the blood of a patient labouring under rheumatism coagulates more slowly than that of one affected with typhoid fever. On what does this slowness depend? M. Denis thinks that the buffy coat forms slowly, in proportion as the blood contains little of its salts and more soda. M. Andral seems inclined to think that the fibrin which coagulates more slowly is newly-formed fibrin.

The increased proportion of fibrin to globules may occur in two ways: 1st, The globules remain unchanged, but the fibrin mounts from three to ten, and the buffy coat, under these circumstances, is invariably formed in proportion to the predominance of fibrin. Such takes place in inflammations, where the quantity of fibrin is increased, both absolutely and relatively. 2nd, There may be a relative increase of fibrin, by diminution of the globules, the fibrin remaining unaltered; here, also, the crust forms as perfectly as during inflammation; the edges are turned up, and the cupped appearance is most evident; we have an example of this in cases of severe chlorosis; a

beautiful specimen of the buffy coat was seen in the blood of a young girl in whom the globules marked 28, instead of the normal number 127. The exposition of these facts is of the utmost importance, and is calculated to terminate various discussions amongst medical men, who were surprised to meet the buffy coat in cases of chlorosis, a disease commonly regarded as the opposite of inflammation.

Unless the composition of the blood be altered in the manner just pointed out, the buffy coat of the blood is never formed, even under the influence of circumstances which have hitherto been supposed to produce it, when acting alone. These may favour the formation of the crust, but cannot produce it. The accessory conditions now alluded to, are—

a. *Flowing of the blood.*—When the blood flows slowly, the crust is not easily formed, and *vice versa*. The slow discharge of the blood gives time for one portion to coagulate before another; the last drawn blood only furnishes the fibrin at the upper part of the vessel, and hence the buff must be imperfect.

b. *Opening in the vein.*—This must be large, and the blood must flow freely, otherwise the crust will not form; the reasons are the same as in the former case. However, we have a good buff with a small stream, if the blood flow rapidly.

c. *Agitation.*—The abstracted blood must remain at rest, in order that the two layers already spoken of may be able to form rapidly, one over the other; the first is rich in fibrin, the second in globules, and if the vessel be shaken before the fibrin is completely coagulated, the globules get mixed with it, and the crust which afterwards forms is imperfect and soft. This is more particularly the case when the blood is agitated immediately after it has been drawn from the vein.

d. *Elevation of the jet.*—It has been said that the buffy coat will not form when the blood falls from a considerable height; this may depend on the separation of the parts of the blood taking place before it reaches the vessel.

e. *Form of vessel.*—In a deep narrow vessel the crust forms readily; in a wide one it is thin and apparently insignificant; but the appearance is deceptive; the crust is the same in both cases, gaining in extent of surface what it has lost in depth.

f. *The materials of which the vessel is composed* exercise no influence whatever.

g. *Temperature.*—Heat impedes the formation of the buffy coat, according to some authors. M. Andral has never seen any difference in the thickness of the crust during winter and summer. However, we can conceive that cold may impede the formation of the buffy coat, by causing the blood to coagulate rapidly; if the vessel be surrounded with ice, or strongly heated, the buffy coat will not form.

h. *Chemical agents.*—For a long time M. Andral sought for some substance which, while it retarded the coagulation of the blood, did not cause any material disturbance in the process, and thus permitted the eye to follow the various steps of the formation of the crust. After several experiments, sulphate of soda was selected. If we receive seventy scruples of blood in a vessel containing ten scruples of a concentrated solution of sulphate of soda, the coagulation of the blood is

completely suspended. After a few minutes the fluid separates into two parts; the lower one consists of the globules collected together into a soft mass; the upper one is at first transparent, and resembles common serum, but soon becomes opaque. If we examine it under the microscope at this period, we discover a multitude of globular, perfectly white corpuscles; this is the *first degree of the solidification of the fibrin*. Forty-eight hours after the bleeding, the fluid, which still remains opaque, contains numerous flocci, like spider-webs. The microscope shows that these flocci are composed of the above-mentioned corpuscles, which are beginning to coalesce. The flocci, then, form the *second degree*.

After ninety-six hours the fluid has recovered its transparency, and contains no trace of corpuscles; but the flocci are more numerous, more firm, and constitute an irregular web, composed of fibres arranged in various directions. Where the web is thickest, we discover several reticulated layers, placed one over the other, and in the midst of the distinct fibres we see several strings arranged like garlands of beads. The mass has now assumed a state of organization intermediate between corpuscles and fibrin.

It was a matter, however, of some importance to ascertain whether the chemical substance employed did not exercise some influence in the production of these phenomena; MM. Andral and Gavarret, therefore, examined under the microscope a drop of the buff, while yet in a liquid state, and they distinguished readily the corpuscles, flocci, reticulated web, &c. Hence, the use of the soda only retarded, without altering, the natural phenomena. When the fibrous web has been formed, we can discover no other change afterwards; but if we examine the same blood in a state of putrefaction, we shall find that it is unravelled, as it were, undergoing, in an inverse order, the changes just described.

The formation of the buffy coat depends on a change in the composition of the blood, and when this change has taken place, the various conditions just enumerated cannot prevent the buff from forming. It exists in diseases the most opposed to each other, if the proportion between the fibrin and globules has been increased; in chlorosis as well as in pneumonia, and now that we know its true cause, we can explain its presence in so many different diseases.

Sydenham relates, that in an epidemic attack of continued inflammatory fever, the blood was covered with a buffy coat like that of pleurisy. But as it is impossible for us to say whether any complication existed or not, we cannot rest on the authority of Sydenham in this instance.

Dehaen says, that he has seen the buffy coat "hundreds of times" in cases of putrid and malignant fevers; but the "hundreds" of Dehaen are not worth "ten" carefully taken and accurate observations; besides, we should remember that he was a declared enemy of tonics in this kind of fevers, and a warm advocate of bleeding.

More recently Borsieri declares that the presence of the buffy coat indicates nothing; that it has been found in the blood of perfectly healthy individuals and in animals. Tommasini, on the other hand, regards the buffy coat as a matter of great importance in the diagnosis of inflammation; and as he frequently found this buffy coat in the

blood of chlorotic females, he arranged chlorosis amongst the inflammations, in order to suit his theory. M. Andral considers the buffy coat of no value as a characteristic of inflammation.

OBSERVATIONS ON DISEASES OF THE RECTUM.

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AMONGST the various diseases of the rectum, procidentia ani is, perhaps, one of the most common and troublesome. It is generally curable in children, but often difficult at a later period of life, frequently requiring an operation, particularly in those cases which are accompanied with frequent discharges of blood. The attention of surgeons was directed to this disease many years since, by the late Mr. Hey of Leeds, and some very interesting cases will be found in his "Practical Observations." I have selected the two following cases from my note-book, as illustrative of the practice recommended by that eminent surgeon.

CASE I.—A medical man, in extensive country practice, had suffered from piles and procidentia ani for many years, attended frequently with much discharge of blood. Notwithstanding the general and local treatment, it increased to such a degree, as to induce him to contemplate retiring from practice. Under these circumstances he consulted Mr. Hey by letter, and proposed to go to Leeds, for the purpose of undergoing an operation, if he should deem it advisable. He recommended its being performed, but did not think it necessary for him to undertake so long a journey, after the description I had given of his case.

A permanent frill surrounded the verge of the anus, which incommoded him very much; it could be returned, but gave him great pain. Two or three small tubercles appeared on the internal part. I dissected off all the flap around and close to the verge of the anus, and drew down a small portion of the rectum to enable me to remove the tubercles. The operation was painful, but he did not suffer much afterwards, and there was no hæmorrhage. A compress of linen dipped in brandy and water was applied; he passed a good night, and complained only the next day of wind oppressing the stomach. In the evening he complained of great bearing down, and passed two or three ounces of coagulated blood with much relief. On the third day a dose of castor oil procured a proper evacuation, without procidentia or hæmorrhage, and he soon got well without any bad symptom.

CASE II.—I performed the same operation for Miss P. of Worlavington, for a similar disease of seven years' standing. The gut descended after every evacuation, which was followed by a copious discharge of blood. A pendulous flap constantly remained down, which could never be returned; and whenever she had an evacuation, a considerable portion more was forced down with part of the internal red lining of the intestine. I had some doubt whether the removal of that part which was constantly prolapsed would be sufficient to establish the cure, and consulted Mr. Hey, who advised the removal of that part only,

and to proceed to a second operation if necessary. This, however, was not required, the first succeeding perfectly, without a recurrence of the protrusion or bleeding.

But all cases do not require such severe treatment; many are much relieved, and some cured, by local applications and attention to the state of the bowels. I remember one case in particular, in which ablutions with cold water every night and morning, and the injection of half a pint into the rectum, with the assiduous use of a lotion made by infusing oak-bark in lime-water, to which sulphate of zinc was added, entirely removed the complaint. This patient was more benefited by Ward's paste than any other medicine, which acted on the bowels with certainty and without irritation.

CASE III.—*Tumor in the rectum.*—I was suddenly called one afternoon to a young lady, who was suffering violently from hysteria, but whose general appearance led me to suspect that she was labouring under some more serious complaint, for she was much emaciated, and her countenance bore evident marks of distress. As she was living with a sister who was also unmarried, and as both were young, and without any female friend near them at that time, I had a good deal of difficulty in ascertaining the true nature of her complaint; but after a little time I was satisfied that all her distressing symptoms arose from some disease about the rectum. A few days afterwards, I prevailed on her to submit to an examination, when I discovered a pile at the verge of the anus, and on carrying my finger into the rectum, a hard tumor, about the size of a walnut, adhering to it by a narrow basis. I drew it down with a hook, and cut it off with a pair of scissors; no hæmorrhage followed, and all the symptoms which had distressed her for years, and which she had concealed under the belief that they were occasioned by piles only, speedily disappeared, and she soon regained her flesh and spirits.

CASE IV.—*Tumor in the rectum from hardened feces.*—A lady, who had been suffering for many years from some obstruction in the rectum, which was considered to arise from stricture, and was treated as such, desired to have my opinion on her case. She was much emaciated, with loss of appetite and sleep, and had constant pain in the rectum, with frequent tenesmus. The efforts to discharge its contents were most distressing, and small quantities of liquid feces only were passed. Neither medicines by the mouth, of which almost every variety had been given, or injections of different kinds, afforded any relief. An examination led to the detection of an enormous mass of feces which had accumulated, become indurated, and distended the bowel to a great extent. It was so firmly impacted that the removal became very difficult, but was ultimately affected by breaking down portions with the handle of a spoon, and injecting large quantities of warm water, after a perseverance of upwards of three hours. Great relief was immediately experienced, but the restoration of the natural action of the bowels was very difficult. Many such cases are recorded, and this is related to point out the necessity of actual examination in all doubtful and long-standing diseases.

AN ANALYTICAL INQUIRY INTO THE CAUSES OF THE PROSCRIPTION OF TOBACCO IN CASES OF ASPHYXIA.

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A NUMBER of years has now elapsed, since the Royal Humane Society of London issued their decree, proscribing the use of tobacco, in all shapes, as part of the resuscitative process in cases of drowning. This example has lately been followed by a similar society in Hamburg; the opinions as to the accuracy of this proscription are, up to the present time, divided in France; and Holland, the country to which we are indebted for the first regular organization of an establishment for the recovery of those drowned, or otherwise apparently dead, still maintains its original views regarding the efficacy of this plant in such cases.

The objects of this paper are, to investigate analytically the causes of this diversity of opinion; to lay before my medical brethren, as it were, a bird's-eye view of the principal experiments, theories, and practical experiences which have, from time to time, been handed down to us by our predecessors; to inquire, as closely as the pages of a journal will allow, into the correctness of some of the theories which have been advanced; and to see how far these can be reconciled to past practice. This, however, is a more difficult task than may at first sight appear; for I shall have to contend not only against opinions which have for a long time been regarded as infallible, but also against views which have been propagated by individuals who have, in more departments than one, enriched science by their discoveries and deep research. It is, indeed, no easy matter to decide when "doctors differ;" for while, on the one hand, some eminent men regard tobacco as a deleterious agent, others again, of no less illustrious name, look upon it, provided it be administered in a proper and cautious manner, not only as a beneficial, but also as the most powerful remedy in the cases above mentioned. In the list of the former, we shall find the names of Hunter, Coleman, Portal, Brodie, Orfila, &c. enrolled; in that of the latter, those of Pott, Stoll, Cullen, Pia, Hawes, Froderé, &c. The first-named individuals base their opinions upon theory, deduced from experiments performed on the lower animals; the others, upon the cases in which tobacco has been successfully employed. The cause of this discrepancy of opinion may, I think, be traced to the commonly received opinions of the properties of tobacco. The description generally given by writers is, that it is narcotico-acrid, acting, when used medicinally or otherwise, as a powerfully depressing agent. This is perfectly true, but it is not the whole truth. That it is a potent sedative, no one who has ever smoked tobacco will be inclined to deny; this action, however, is not the primitive but the secondary one; for, like opium, in certain doses, its primary properties are decidedly *stimulating*. It is on account of this peculiarity that its employment has been recommended in cases of drowning; and it is, I think, from the overlooking of this fact, and the decided preference that has been given to theory over practice, that so much

opposition has been raised against it as a remedy. One circumstance, however, is incontestable; and that is, that all the objections which have been advanced against the efficacy of tobacco injections are speculative, and rest purely on theoretical grounds; no view which has been brought forward is supported by direct proofs; while, on the other side, practical experience tells greatly in favour of tobacco, as a powerful agent, in the restoration of asphyxiated individuals.

Besides, the experiments which have been performed by many writers on this subject, are not of that nature to enable us to form correct deductions. In Sir Benjamin Brodie's experiments with the infusion of tobacco, he mentions neither the strength of the infusion, nor the ages of the animals used; moreover, the results obtained do not coincide with each other. For instance, in some of the experiments, no peristaltic motions of the intestines were excited; in another, which, in my opinion, is the most interesting, they were greatly increased, and accompanied by spasms of the whole of the voluntary muscular system. As a brief outline of these experiments here may not altogether be out of place, I shall subjoin one.

Experiment 1.—Four ounces of the infusion of tobacco were thrown up the rectum of a dog; in four minutes, there was retching without vomiting; in nine minutes, the motion of the heart could not be felt; and, in ten minutes, the animal appeared dead. On opening the two great cavities, the heart was found much distended; there was no peristaltic motion of the intestines.

Experiment 2.—An ounce of very strong infusion was injected into the rectum of a cat. Death in seven minutes; symptoms similar to those in the last experiment; extreme distension of the heart.

Experiment 3.—Three ounces of infusion were injected into the rectum of a dog. Death in ten minutes; symptoms and *post-mortem* appearances, similar to those already mentioned.

Experiment 4.—Three ounces of infusion were injected into the rectum of a dog; immediate tremulous contractions of the voluntary muscles. In five minutes, the injection was repeated: sickness, vomiting, faintness, and death in ten minutes after the second injection. The heart was found extremely distended; on being scratched with the point of the scalpel, both auricles and ventricles contracted so strongly, as to restore the circulation, which, by the aid of artificial respiration, was kept up for more than half an hour.*

The fifth experiment being the most important, and the one above alluded to, I give it in full. "In a dog, whose head was removed, I kept up the circulation by means of artificial respiration. I then injected into the stomach and intestines nine ounces of the infusion of tobacco. At the time of the injection, the body of the animal lay perfectly quiet and motionless on the table; the heart acted regularly one hundred times in a minute. Ten minutes afterwards, the pulse rose to one hundred and forty in a minute; the peristaltic motion of the intestines was much increased, and the voluntary muscles, in every part of the body, were thrown into repeated and violent spasmodic action. The joints of the extremities were alternately bent and extended; the muscles of the spine, abdomen, and tail, alternately relaxed and contracted, so as to

* For more intimate information regarding these, see *Philosophical Transactions* for 1811.

turn the whole animal from one side to the other. I have observed, in other instances, spasmodic actions of the muscles, where the circulation was kept up by artificial respiration, after the removal of the head, but not at all to be compared, either in strength or frequency, with those which took place on this occasion. I made pressure on the abdominal aorta for more than a minute, so as to obstruct the circulation of the blood in the lower extremities; but the muscular contractions were not lessened in consequence. Half an hour after the injection of the infusion, the artificial respiration was discontinued. The heart continued to act, circulating dark blood; the muscular contractions continued, but gradually diminished in strength and frequency. I tied a ligature round the vessels at the base of the heart, so as to obstruct the circulation; nevertheless, the muscular contractions still continued, though less frequent and forcible than before, and some minutes elapsed before they entirely ceased. In this experiment, the disposition to contraction in the muscles was very much increased, instead of being diminished, as in those just related.

Now, these are the experiments upon which those opposed to the use of tobacco injections chiefly support their objections. It was also upon these experiments that the paragraph in the annual report of the Royal Humane Society, London, for 1812, proscribing the use of tobacco fume in cases of asphyxia, was founded; although it will be seen, that no experiments whatever with the *fume* had been instituted, and that it was the *infusion* that had been employed. The fact that combustion does, or may, materially alter, not only the chemical nature, but also the properties of a substance, was not called into account; and still more, the statement of Sir Benjamin Brodie himself, confessing his inability to devise any experiment, by which the truth or fallacy of his opinion might be put beyond the reach of doubt, seems to have escaped the attention of the drawers-up of this report.

I cannot here avoid remarking that this conclusion, on the part of the Royal Humane Society, exhibits, to say the least of it, a degree of inconsistency which it would, perhaps, be difficult to justify; particularly if the former medical reports of their own medical men be perused, in which the virtues of tobacco, in cases of drowning, are so highly extolled. The limits prescribed by a journal preclude me from giving these a place in the present paper; copious extracts, however, will be found in a work which has, for some time, almost exclusively engaged my attention, but which is not yet in a sufficiently forward state for the press.

In Günther's report* we find the following paragraph. "The utility of tobacco injections has not been sufficiently determined. It is, therefore, better to desist from their employment, as long as signs of life are absent; and should these be present, to exhibit them only when the attending physician deems an immediate evacuation necessary." I am unable to reconcile the commencing sentence of the above paragraph with the concluding one. We are told, that *the utility of tobacco injections has not been sufficiently determined*; and yet, in the same breath, their employment is recommended

when an immediate evacuation is deemed necessary. To what does this amount, but an acknowledgment of the efficacy of tobacco injections in stimulating the digestive tube? I shall leave my readers to form their own conclusions regarding this extraordinary extract, and should any doubts arise concerning the fidelity of my translation, I beg to refer to page 44 of the above-quoted report. Marc* mentions a later edition, published by the Hamburg Society, in which the use of tobacco is altogether rejected, "because its utility has in no case whatever been demonstrated." I shall dismiss this assertion by stating, that in my analysis of the objections raised by M. Portal, which will be found further on, this circumstance will, perhaps, be accounted for.

Curry† finds his objections to the employment of tobacco fumigations on the following experiment performed for him by Sir Benjamin Brodie. The fumes of about three drachms of tobacco were injected into the rectum of a dog; this was accomplished in twenty-five minutes. After the first ten minutes the animal was in a dosing state, with tremulous contractions. The pulse was somewhat lower than natural. He vomited once, and, after the experiment was concluded, lay for some time quiet, and gradually recovered.

The above experiment cannot be brought to bear against the efficacy of the fumigations; for, firstly, the quantity of the plant employed was large; secondly, the stimulating stage was allowed to pass unnoticed; thirdly, the length of time that elapsed before the completion of the fumigatory process was great; and fourthly, none of the extreme effects which an *infusion*, containing the same quantity of tobacco, would have developed were manifested.

Hunter‡ feared, that the copious evacuations produced by the exhibition of the tobacco fumigations, might still more weaken the already greatly depressed powers of life. The usual accuracy and correct deductions of this celebrated man do not appear to be well displayed here; for what are the evacuations brought about by the stimulating properties of this vapour, but one of the signs of returning vital action? His apprehensions on this point do not, therefore, appear to be well founded.

The invective language which is indulged in by Coleman,§ and which he has heaped with no sparing hand upon such of his contemporaries whose opinions were favourable to the exhibition of tobacco, requires no refutation from me, this having been ably accomplished by Dr. Hawes, in the earlier reports of the Royal Humane Society, to which I refer those who may be more than superficially interested in this subject.

M. Leroy d'Etiolles, in his *Instructions sur l'Asphyxie*, although he does not completely proscribe the tobacco fumigations, is of opinion that it would be as well, taking into consideration the diversity of opinion which exists on this point, to abstain from their use until the other more generally used remedies have been ineffectually employed. He further recommends the substitution of other aromatic plants, such as sage, rosemary, lavender, wormwood, &c., in order to do away with the narcotic effects attributed to tobacco. I extremely regret that I cannot altogether subscribe

* Secours aux noyés et asphyxies.

† Observations on apparent death.

‡ Proposals for the recovery of people apparently drowned; Philos. Trans., 1776.

§ Dissertation on natural and suspended respiration.

* Geschichte und Einrichtung der Hamburgischen Rettungs-Anstalten, 1828.

to the views of this gentleman, to whom I labour under a deep debt of gratitude for a series of kindnesses and personal attention; for, were his first recommendation carried unexceptionally into effect, we should always use tobacco under very unfavourable and discouraging circumstances; and although his second advice may do very well in ordinary cases of asphyxia, yet in extreme cases I do not think that they are sufficiently stimulating, a property which is possessed in a high degree by tobacco, and a circumstance of which M. Leroy takes no particular notice.

M. Portal* ranks as one of the foremost of those who are opposed to the employment of the vapour now under consideration. He couches his objections to the use of tobacco fumigations in the following terms.

1. Because, in the greater number of the drowned persons restored to life, these fumigations were not used at all.

2. Because, in the small number of those subjected to this treatment, the greater number manifested signs of life before the fumigations were employed, which were never used alone, but in conjunction with other remedies.

3. Because the fumigations have chiefly been resorted to in the greater number of those individuals in whom the efforts to restore life proved fruitless.

In recording these, M. Portal assures us that they are the result of careful reading and examination, he having perused with great attention most of the numerous works, native as well as foreign, which had, in his day, been published. It is very far from my intention to insist on the efficacy of tobacco smoke injections in all cases of drowning, but at the same time I look in vain for conclusive argument in the objections which have been raised against their employment by M. Portal. I shall shortly dwell on these individually, subjecting each to a brief analysis, for the purpose of proving their non-validity.

1. *Because, in the greater number of the drowned persons restored to life, these fumigations were not used at all.* This is very possible, and most likely true, but can very easily be accounted for. If the reports of any humane society be consulted, and the particulars of the treatment and time of the submersion, or rather immersion, examined, it will be found that the greater number of those restored to life required no treatment beyond a glass of brandy and having their clothes dried. This objection, therefore, appears to me to be wanting in proper value.

2. *Because, in the small number of those subjected to this treatment, the greater number manifested signs of life before the fumigations were employed, which were never used alone, but in conjunction with other remedies.* I cannot, and I believe no one else can, find the prejudicial effects of tobacco smoke demonstrated, either because signs of life were manifested before its employment, or because other remedies were at the same time resorted to. Were this objection admitted, it could, with the greatest justice, be applied to all the other remedies; for no serious case of drowning has ever occurred in which one remedy alone was trusted to. Cases, however, are not wanting, and a few of those will be cited farther on, in which all the other remedies had been employed without success; and it was

not until *after* the injection of tobacco smoke that signs of returning animation appeared. I am perfectly willing to admit, in order to save argument, that the administration of the previously used remedies might, perhaps, have prepared the system, and rendered it more susceptible of the action of the gas, but am far from subscribing to the belief of its total inefficacy, or, as some have it, destructive effects.

3. *Because the fumigations have chiefly been resorted to, in the greater number of those individuals in whom the efforts to restore life proved fruitless.* It is true, that in France and Holland tobacco smoke injections have been employed in the greater number of the individuals above referred to; but this objection, like the foregoing one, applies equally to all the other remedies. If we inquire a little more minutely into the circumstances under which this elastic fluid has been used, we shall find that, in the majority of cases, the time of submersion has been considerable, the other remedies strenuously but fruitlessly employed, and the tobacco flown to as a last resort, a forlorn hope. Is it then wonderful, that in such cases its application should have proved fruitless? Is it just, is it liberal to judge of the properties of any substance under such circumstances? No! Why, then, single out this remedy? why multiply objection upon objection to its use? Has it ever been proved that, in cases of asphyxia by submersion, this plant has produced such fatal consequences as those brought about by the use of the lancet or the bellows? for it cannot be denied that many asphyxiated individuals have perished from imprudent bleeding and rude inflation of air. I am not, as I have before remarked, an enthusiastic advocate for the indiscriminate use of tobacco, or indeed of any other substance; from what I have read and heard from undoubted authority, and also from various experimental trials, I believe it to be of service in cases of drowning. The objections which have been raised against it are, I repeat it, founded upon hypotheses merely; and although they have emanated from men towards whom I entertain a profound respect, they do not, however, extinguish the desire I have to see the tobacco smoke employed with less prejudice, and under more favourable circumstances. M. Portal has advanced another objection, which I shall briefly notice, and as briefly dismiss. He tells us that the injection of the vapour, causing distension of the intestinal canal, is apt to press the diaphragm upwards towards the chest, compress the lungs, and thus oppose the accomplishment of respiration. But this objection is, as M. Marc very justly observes, too mechanical; and besides, those cases of asphyxia in which the intestinal canal suffers itself to be dilated to such a degree as to press upon the lungs and prevent respiration, demonstrate to us a want of vital reaction, under which circumstances one and all of our remedies will prove unavailing, seeing that we can hardly count upon a remnant of life.

Having now passed in review the various opinions of the writers opposed to the employment of tobacco in cases of drowning, I should proceed, preserving the same order, to state the grounds upon which those who are in favour of it advocate its exhibition. The principal of these having already been quoted in meeting the above objections, such a proceeding is unnecessary, as it would prove but a useless repetition. There

* Observations sur les vapeurs méphitiques.

are points, however, that have not been mentioned, which require a particular notice, and it is to these that I shall confine myself on the present occasion. The length which this paper has already reached precludes me from entering into the favourable theoretical opinions in as minute a manner as I could have wished, and compels me to refer those desirous of more particulars, to the respective publications. Those which may be read with interest are, Cullen's *Letter to Lord Cathcart*; Foderé's article, *Noyés*, in the *Dictionnaire des Sciences Médicales*; the *Amsterdam Memoirs*; the *Paris Memoirs*, by Pia, and Hawes and others, in the earlier *Reports of the Royal Humane Society, London*. I shall therefore notice but practical facts, and a few rather remarkable cases, leaving theory almost entirely out of the question. If I were to bring forward all the cases in which the employment of the smoke of tobacco has evidently been the cause of the first appearances of returning life, this paper would occupy a much greater space than the valuable journal of which it necessarily forms but a small part. Four or five briefly-related examples, occurring in widely-separated large cities, will, I trust, be sufficient to prove beyond a doubt, that it has not only been efficacious in practice, but, also, that the return of life was chiefly, and in some cases solely, owing to its exhibition. Numerous other examples will be found in the works from which these have been taken, the titles of which I have noted at the end of each case.

CASE I.—At Amsterdam, an old woman was taken out of the *Rakin*, a deep canal, in which she had been immersed a considerable time; she was supposed dead, and was about to be carried away, when Sybrand Yserman, a skipper of Gouda, who had read the Society's advertisement, believing that tobacco smoke might recover her, made the trial with a lighted pipe he had in his mouth. After the introduction of the smoke of two pipes full of tobacco, she manifested signs of life, was then carried home, and ultimately recovered.—*Amsterdam Memoirs*.

CASE II.—At Paris, a boy named Jean Baptiste Quidet, aged eight years, fell into six or seven feet of water, and was taken out after a quarter of an hour's submersion. M. Dufour, who was the surgeon sent for, successively employed the usual remedies, which were not followed by any good result whatever. The fumigatory apparatus was now used, which restored the child to consciousness; after which, a teaspoonful of camphorated alcohol was administered, which induced the vomiting of a considerable quantity of water tinged with blood. This evacuation was followed by another, bilious in appearance; and an hour's further treatment proved sufficient for the recovery of this patient.—*Pia, Detail des succès de l'établissement que la ville de Paris a fait en faveur des personnes noyées*.

CASE III.—A boy, aged ten years, playing on the banks of the Rhone at Lyons, fell into the river and disappeared: he was carried off by the strong current about four hundred paces. The accident was perceived by two fishermen, who plunging in after him, succeeded in rescuing the child, and carried him to La Charité. By the time that they arrived there, nearly three quarters

of an hour from the time of his immersion had elapsed. M. Grandchamp, the hospital surgeon, directed the resuscitating remedies. When this gentleman first saw him, the eyes were open and fixed, projecting and looking inflamed; the countenance was swollen, and of a violet colour. His clothes were instantly removed; he was dried, and enveloped in warm flannel; the jugular vein was opened by one assistant, whilst another employed general frictions with cloths soaked in warm wine. Two teaspoonsful of antimonial wine were now administered, and the volatile alkali applied to the nose, but without effect. The fumigatory apparatus was now called into requisition, which immediately induced respiration and copious vomiting. The former remedies were again had recourse to, and were followed by recovery. In two days the child was restored to his parents in perfect health.—*Pia, Op. Cit.*

M. Marc, in his work, makes the following judicious remark on this case:—"Although the treatment of this child is, in some degree, objectionable, yet it proves that the inflation of tobacco smoke into the intestines, far from being injurious, proved eminently successful."

CASE IV.—Two men were drowned at Cork by a gust of wind. The accident was observed by many, but no one had courage to put off to their relief. When much time had elapsed, some men brought the bodies on shore, to all appearance dead. I went to the receiving-house where the dead persons, as they termed them, were carried. There was not the smallest respiration, or any other vital motion to be perceived. By fumigation, in three quarters of an hour, life returned in one; he sighed, and became universally convulsed. In about half an hour, his pulse returned, with difficult respiration, and a gradual symptom of restoration.—*Transactions of the Royal Humane Society*.

CASE V.—A child of Mr. Samuel Dashwood, jun., of Boston, aged two years, fell into a cistern of water seven feet deep, and when taken out by a gentleman of the neighbourhood, appeared dead. Fortunately, this gentleman was acquainted with the methods recommended by the Humane Society, and immediately began to put them into practice. These were persevered in, and at length he had the satisfaction to discover signs of returning life; the first symptom of recovery was a convulsive motion of the chest, attended with a forcible effort to distend the lungs. A physician arriving at this time, the pulse was examined, and though perceptible, it was extremely languid and irregular. Fumigations of tobacco were vigorously applied, and on the first injection into the bowels, a full inspiration and an evident increase of the action of the heart were produced. On suspending the use of this remedy for a minute, the vigour of the pulse was sensibly abated, and on returning to it again, the effects were as before, together with a small discharge of indigested matter from the stomach. The child was then put into a hot bed, and frictions were employed; in three or four hours he appeared to be perfectly recovered, and is now a healthy and promising child.—*Reports of the Humane Society of Massachusetts*.

The results of Copland's experiments are interesting in a high degree, as they prove the

primary action of tobacco to be stimulating. In persons unaccustomed to the use of tobacco, and who were caused to smoke this plant, he ascertained that the pulse rose after a short lapse of time; when perspiration and subsequent vomiting came on, he found that it had fallen below its original standard, which it gradually resumed some time after the cessation of the smoking. In one person, who occasionally smoked tobacco, a thrilling sensation was experienced, accompanied

by increased arterial action. The pulse rose in half an hour from 80 to 99, and, in the course of two hours, was again at the former number. I was anxious more accurately to determine the time necessary for this change of the pulse, and carefully observed the effects produced upon myself and other friends whilst smoking the plant. The following is an extract of numerous experiments, with results, and short observations.

	Before smoking the pulse stood at	After the first quarter of an hour	After the second quarter of an hour	After the third quarter of an hour	After the fourth quarter of an hour	OBSERVATIONS.
Experiment 1, on myself.	64	72	80	80	84	Accustomed to smoke occasionally; pulse assumed its original standard after the lapse of an hour.
Experiment 2, on myself.	68	80	84	80	72	Pulse in a short time after stood at 68.
Experiment 3, on Mr. F.	68	72	80	84	84	Accustomed to smoking; in less than an hour the pulse was at 70.
Experiment 4, on Mr. R.	72	78	80	80	84	Accustomed to smoking; in about an hour the pulse was again at 72.
Experiment 5, on myself.	60	78	80	78	72	In an hour, the pulse was at 64.
Experiment 6, on Mr. A. G. M.	64	In five minutes. 76	In ten minutes. 84	In fifteen minutes. 88	—	Totally unaccustomed to smoking; a feeling of nausea suddenly came on, after the first fifteen minutes, and the smoking was discontinued. After the repose of three quarters of an hour, the pulse was nearly at its former standard.

It will be observed, that the time employed in each of the above trials was an hour, excepting in the case of Mr. A. G. M., who was totally unaccustomed to smoking, and compelled to desist after the first quarter of an hour. The pulse then fell rapidly, but not below its original standard, which it resumed in about three quarters of an hour. From the above, it will be seen that, in all the cases, there was an augmented action of the heart, the increase varying from 12 to 20. I may also mention, that in no single instance, have I been disappointed in procuring the primary stimulating effect.

Testa,* although he acknowledges the primitive action of this plant to be stimulating, is opposed to its employment, on the ground that its subsequent narcotic action overbalances any early benefit that may be derived. I shall answer this objection by remarking, that in cases of suspended animation, our first duty is, if possible, to rouse the latent vital powers. No disorder, perhaps, calls more imperatively for active and decided conduct than asphyxia; delay, in such cases, is highly reprehensible; every minute that is unnecessarily lost,

* Della morte apparente, &c.

renders the chances of recovery more uncertain; every second that is neglected, is but a nearer approach to death. It is here that our treatment must be strictly regulated by an intimate knowledge of pathology, and the physiological action of the remedies which we exhibit. The former pressingly indicates the necessity of powerfully rousing the suspended actions of those organs which enter into the mechanism of life; and until we are put in possession of another substance, possessing the stimulating properties of tobacco, in the same degree, it is, I assert, our bounden duty to employ that plant for the sake of its beneficial effects, and leave its prejudicial ones to be combated by other well-known stimulating remedies. The fact must always be kept in view, that the impulse once given, nature herself renders invaluable and marvellous assistance, unless, indeed, the powers of life have received such serious injury as to baffle even her skill, in which case, of course, our efforts must prove unavailing.

The grounds, then, upon which the employment of tobacco fumigations are recommended in cases of asphyxia, are the following.

1st. They diffuse a genial warmth within the

interior of the body, which cannot but prove favourable in all cases.

2nd. The irritation produced by its presence, not only from its acting as a foreign body, but also through the medium of one of its properties, namely, the stimulating, excites the irritability of the intestinal tube, and re-establishes its peristaltic motions.

3rd. In cases of drowning, in which the submersion has been considerable, and the animal heat is almost entirely absent, we have no substance possessing such active properties as tobacco.

4th. If we lay aside all theoretical considerations, and draw our deductions from practical results, we shall see that there are cases in which tobacco *alone* has been used with decided success; and that in those where tobacco was employed conjointly with other remedies, it will be found difficult to determine the remedy which contributed the most towards the return of life.

5th. In no case whatever can any baneful effect be positively attributed to the action of tobacco fumigations.

Finally, I will remark that the conclusions condemnatory of tobacco seem to me to be rather hastily drawn. As it is neither upon theory, nor the carrying out of a favourite hobby, that the employment of any substance should be recommended, so should fanciful ideas or unfounded antipathy be deemed insufficient for rejection. Whilst an indiscriminate use of any drug is to be greatly deprecated, the opposite extreme should also be avoided. There is a middle course which should also be shunned, and that is, a wavering between these two. Many lives have been lost, in consequence of indecision; and it should always be borne in mind, that "our doubts are traitors, and make us lose the good we oft might win, by fearing to attempt."

47, *Liverpool Street, Broad Street,*
20th July, 1841.

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In the midst of a large population, or in situations where evils have been gradually and almost imperceptibly introduced, it is scarcely possible either to estimate with any certainty their extent, or to arrive at just conclusions respecting their effects. For the elucidation of many of these, investigations carried on in smaller communities are better fitted; and although, as a general principle, it may require accumulated observations, or observations carried on for a considerable period of time, or over a wide extent of country, to rectify errors, and reduce the variations arising

therefrom within the limits of calculation, the presence of disturbing causes is more commonly rendered manifest under the opposite circumstances. There can be no question in the mind of any intelligent person, but that the practices of ignorant and designing persons upon the health of the community must prove fatally injurious. The mischief, however, in the more populous places to which unprincipled persons of this description commonly resort, has usually grown with the growth of the population, and becomes from that cause inappreciable, or is lost in the very mass of the general facts accumulated, or counterbalanced and concealed by complication with other influences. Under such circumstances, observations collected in a less populous locality, and expressly in relation to the point under investigation, become of great value. In this manner, the evil, whatever it may be, becomes in a measure isolated, and is much more likely to be traced in its effects, than could otherwise be done.

The researches of Dr. Cartwright into the fatal effects of empiricism among the population of Natchez, to which we alluded in our last number, are strongly illustrative of the preceding remarks. Natchez is a town in the state of Mississippi, and, as it appears from the statements of Dr. Cartwright, possessed during the ten years 1824 to 1833 inclusive, an average population of 3000 individuals. The total deaths in this period amounted to 978, giving an annual mortality of 1 in 30.6. It seems that, during this period, strict laws were in force in that state against quacks and empiricism of all kinds.

Upon the relaxation of these laws in the course of the year 1833, a host of empirics made their way to Natchez, and used every means to destroy the confidence of the public, both in their medical advisers, and in the remedies which had hitherto been employed in the treatment of their diseases. All those artifices which are generally had recourse to by these unprincipled pretenders, and with which we, in this highly-civilized country, are by miserable experience so well acquainted, were put in requisition. The natural and unavoidable effects of age, debility, or incurable disease, were ascribed to the employment of certain methods of treatment; the secret nostrums of the quack were highly vaunted; the cures, real or pretended, which took place under their exhibition, were advertised, and every means taken which interested and unprincipled activity could devise, for the attainment of the fraudulent ends of those engaged in this wretched and murderous system of imposture.

The rate of mortality of the town, previous to the introduction of these practices, has been

shown; we have now to look to that which occurred under the new order of affairs. If the pretensions of the empirics could for one moment be thought to be founded on truth, the cures which they performed, and the number of cases which they rescued from the hands of the regular practitioners, must necessarily reduce the rate of mortality; and as they seem to have succeeded to a very considerable extent in obtaining a footing in the town, the increased longevity of the population, consequent on their establishment, should be very perceptible.

The following is a summary of the results afforded by statistical examination of the period immediately succeeding the introduction of these pretended reforms into the medical practice of the town:

"The total number of deaths," observes Dr. Cartwright, "which occurred in ten years, from 1823 to 1834, is 978. If, therefore, a population of 3,000, in ten years, lose 978, how many deaths would occur in a population of 6,000 in four years and nine months? The total number should be 929. But the actual number of deaths recorded in the sexton's books, the last four years and nine months, since the pretended reformation in medicine commenced, is 1315. The reformation, therefore, has reformed, in four years and nine months, no less than 386 individuals out of existence. But to put the matter in a plainer light—the average annual mortality of Natchez, since empirics have divided the practice with the regular physicians, is no less than one death per annum in every 21·7 of the inhabitants; but to estimate the mortality on the actual population of 1837, when Natchez contained its highest population, 6,000, it would be 1 in 22·2; but in the ten years preceding this mixture of empiricism with the regular practice, only one in every 30·6 died per annum."

It may be thought that other causes must have operated in producing this increase of mortality at Natchez during the last four years and nine months. Thus the great influx of strangers, or new inhabitants, will require, on the one hand, that the effects of acclimatization should be taken into consideration; and on the other, it may be supposed that the smaller mortality of the preceding ten years might be owing to a greater proportional number of the population leaving the town during the sickly months at that time, than in the second period of four years and nine months. In reply to this, Dr. Cartwright states, that the fever of acclimatization, or the stranger's fever, as it is sometimes called, never occurs in winter or spring, and that no persons leave the town to escape sickness during the months of January, February, or March. But the total number of burials, during

the ten years, from 1823 to 1834, in the months of January, February, and March, was only 159; while the number carried to the burial-grounds, during the last five years, in the same months, January, February, and March, amounted to no less than 239. Half the time and twice the population ought to give the same results as twice the time and half the population. If, therefore, the introduction of empiricism and patent medicines into Natchez had added nothing to the mortality of the place, the aggregate number of deaths which occurred during the first quarter of each of the last six (five?) years, should not have exceeded the aggregate number of deaths which occurred during the first quarter of each of the ten preceding years. They do, however, exceed them as far as 239 exceeds 159. In the month of April, it appears that the average mortality was only "1 in 50 per annum of the total population, including strangers, during a period of ten years. But since Natchez has been overrun by empirics, the mortality of the last five Aprils has increased to 1 in 29·4 per annum. The mortality which occurred in the practice of the physicians, in each month of April, for ten years, between 1823 and 1834, has been at the rate of 1 in 64·2. The mortality which has occurred in the practice of the physicians of the last five Aprils, has been at the rate of 1 in 65·7—nearly equal, as far as the physicians are concerned, in both periods. Yet, in the first period of ten years, only 1 in 50 died, but as soon as quackery was introduced, 1 in 29·4 died."

Facts of this character are exceedingly valuable and important; they come home to the understanding, and, depending upon numerical statements, cannot readily be disposed of in the summary manner in which observations of another description, though perhaps equally worthy of attention, are often put aside. Were the searching scrutiny to be instituted into the practical misadventures of empirics and unqualified persons in general, which has occasionally been set on foot into the practices of our hospital physicians and surgeons, very instructive data would be obtained for enlightening the public mind as to the consequences of encouraging quackery. The statistics of empiricism, could they be correctly worked out, would form an admirable accompaniment to the statistics of crime, and would afford materials for instructing the public upon many curious matters, respecting which they are at present in most profound ignorance. The chance-medley, especially among the infant portion of the population, which would thus be revealed, putting manslaughter and other more culpable forms of homicide out of the question, would, we are convinced, be astounding;

while the iniquity of making any part of this trade in human life and suffering a source of revenue, would become so glaringly manifest as to compel the discontinuance of the practice. We know of nothing more monstrous than this mode of deriving a financial income for the state from the sale of patent medicines. Either the remedy is in itself valuable, and ought to be placed, as far as practicable, equally within the reach of the sick of whatever grade, poor as well as rich, or it is absolutely noxious, and should be prohibited rather than protected. The only other alternative is, that the preparation is inert, and in its effect powerless, either for good or for evil; in which case, to say the least, the government stamp lends authority to a fraudulent imposition. But no medicine—no substance or measure professedly remedial, can be harmless in its effects. If it be not such, either in its nature or in its adaptation to the circumstances of the case in which it is administered, as to prove beneficial, it must necessarily prove injurious, by occupying the place of other remedial agents or measures which might prove more efficacious. Hence the nostrum of the quack, professing, as it does, to be of almost universal application, should be absolutely prohibited, since it must be either inert, and consequently prove, wherever used, the cause of dangerous delay, or if active, too often positively injurious in a direct ratio with its power. Hence, also, the practice of quacks and of every unqualified person should be absolutely prohibited. If really possessed of attainments which authorize them to undertake the management of the sick, let them pass the required examination, and take out the legal license; if otherwise, surely it will not be contended that the public should be any longer exposed to their fraudulent and homicidal practices. But it is said, every man has a right to seek advice where he likes, and it is asked, who is to prevent him from following it? There is, however, an obvious fallacy in this mode of putting the question, as we have on former occasions pointed out. Though an individual cannot be restrained from seeking advice wherever it may seem to him fitting, nor from following it to his own injury, it is quite competent to those in authority to make the giver of such advice responsible.

The public are presumed to be uninstructed and ignorant in these matters, but it is precisely for the protection of the uninstructed and the ignorant, the weak in mind as well as the weak in body, that the whole machinery of law and government is required. A wise man is, to a certain extent at least, able to take care of himself; it is for the unlearned and the unwise, who after all must constitute the mass of the community, that the protection of those placed in authority and power

is required. At all events, the state should not share a profit with the acknowledged impostor, derived from the perhaps irremediable ignorance of a large proportion of its subjects. The admirable report of the Committee of the Provincial Association on the Poor-law Medical Relief, now publishing in this Journal, is, we have reason to know, gaining access to those who have the power to interest themselves in the settlement of this question, and we trust that the mischievous effects of empiricism in all its forms will, in like manner, be pointed out, and brought before the notice of persons of authority and influence. It is unfortunate that, in all cases of this description, those to whom the power of redressing the evils complained of, are to the full as ill-informed as the poorest and most illiterate of her Majesty's lieges; but we cannot but anticipate a better order of things from the spirit of inquiry which is abroad; and, under any circumstances, it is fitting that the best and fullest information should be circulated upon every subject of importance on which there are manifest errors of opinion entertained, and injurious practices permitted. The fatal effects of quackery are well shown in the details which we have referred to, and we trust that the example of our American friends will not be thrown away, and that some similar attempt to place these delusions in their true light will be made amongst ourselves.

REVIEW.

Medicinische Fragmente; or Observations on a general Theory regarding Sea-bathing and Bathing Places, and the identity between Cow-pock and Small-pock. By Dr. CHARLES MÜHRY. Hanover, 1841.

In a preface, the author informs us that this work is a fragment, illustrative of the subjects mentioned in the title, and not a complete treatise, for which, however, materials had been collected by his brother, whose premature death prevented their publication.

The merit of having first inculcated the medical efficacy of the bath, and of pointing out the means whereby the public might with comfort experience its medical and wholesome agency, seems due to England. Thomas Guidot's "Apology for the Bath," &c. London, 1718, heads the long list of English and continental literature on the subject; and the coasts of England were early provided with the necessary preparations for deriving advantage from, or enjoying seaside ablution. The celebrated physician Hoffmann, in his scientific works on the watering-places of Germany, cer-

tainly assisted in making the healing properties of bathing more familiar to the public, and more correctly appreciated by his professional brethren; his views were encouraged and acted on by his countrymen, and the shores of the Baltic and North Sea were soon visited by multitudes of sick, who flocked to the establishments constructed along their coasts. Amongst these, Dobberan or Mecklenburg deserves to be noticed, where a well-organized system of sea-bathing was first instituted, and conducted on scientific principles by J. G. Von Vogel.

Sea-bathing having thus become general throughout Europe, its medical effects were found to be various, and considerably modified by natural causes; while, on the other hand, much uncertainty and doubt has attended its administration, because the effects of sea-bathing have been assimilated to those of inland mineral baths. To obtain a satisfactory knowledge of its ordinary action and influence on the human system, the author divides his subject into the three following parts:—

1. The natural qualities of the sea, and of the various seas of Europe.
2. The general effect of sea-bathing, and its influence on particular complaints.
3. The method of administration at the different watering-places.

Under the first head, the medical and corrective influence of the sea on the human constitution is considered, and its properties are viewed as dependent on temperature, tides, sea-air, and chemical composition. Little variation of quality has been generally admitted in the various arbitrary divisions of the great ocean which surrounds the world; proximity to the land does, however, impress some modifications, and the author mentions as being differently circumstanced and modified the Atlantic, including the North Sea, the Baltic, the Mediterranean Sea, and the Black Sea, to which he at present would limit his examination.

The temperature of the sea and its atmosphere is regulated by latitude; it is, however, steadier, and less subject to vicissitude than that of the land; the sea acquires more slowly and retains longer its warmth, and when sea and land approximate, alternations and interchange are constantly going forward. The sea, also, has a temperature independent of its atmosphere, and the higher degrees of the latter are never obtained by the former, according to Arago; its temperature never exceeds 18 to 21 deg. R., within the tropics; the mean temperature is about 5½ deg., between the 40 and 52 deg. north latitude. This low temperature is, however, avoided, by availing ourselves of the warmer periods of the year, from July to October;

besides, the temperature of the sea, in the immediate vicinity of the shore, is always higher than that of the ocean; this has been proved by observations made in England, France, and Germany; and the Mediterranean is adduced as a remarkable instance of this influence; the warm winds from the deserts of Africa elevating its heat by 3¼ deg. F. over that of the adjoining Atlantic.

In the second chapter, Dr. Mühry examines the sanative influence of sea-bathing on various diseases, and its effects on the general constitution. In the third chapter, he describes the various modes in which salt-water bathing or baths may be administered, and gives a sketch of the principal European watering-places. We have perused Dr. Mühry's work with much pleasure; it contains some valuable hints, and much interesting information.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

(Continued from p. 310.)

REPORT OF THE POOR-LAW COMMITTEE, 1840.

(Published, by order of the Council.)

§ 36. Your committee have, in a former section, observed, that one of the principal evils of the old system of parochial medical relief was the want of efficient supervision and control of the medical practitioners employed to attend the poor.

On the introduction of the new poor-law, the commissioners endeavoured to supply this defect, by requiring weekly returns of the diseases affecting the paupers, of the attendance of the medical officers, and even periodical reports of the treatment of cases.

In providing this check, the commissioners might have been actuated by praiseworthy motives, but unquestionably the mode of securing compliance with their instructions was both ineffective and offensive; *ineffective*, because neither the commissioners nor the guardians were competent to decide whether a sufficient amount of medical attendance had been afforded in any given case; and *offensive*, inasmuch as "highly-qualified practitioners could not feel satisfied in submitting their practice to the judgment of non-professional persons;" (14922) whilst the weekly attendances at the board, which were required of the medical officers, were felt to be derogatory, unnecessary, and incompatible with regular professional engagements.* Mr. Gulson, indeed, asserted that the weekly reports were "a great security to the poor." (1756-1824) But when asked, who, in the board of guardians, was capable of determining whether the requisite medicines and attendance had been sup-

* Dr. Yelloly mentions, that the guardians of a union in Norfolk, in order to secure the attendance of a medical officer, stipulated "that he must attend at the workhouse," (four miles from his residence,) "one hour regularly every day, whether there is any duty requiring such frequent attendance or not." How could the thralldom and want of confidence evinced by any such stipulations be favourable to the interests of the sick poor? The guardians of the Bradfield union, who have annually advertised for tenders, required "security to be given for performance of contract;" a shrewd method, truly, of ensuring attention to the duties of the office!!

plied, he answered, "that must be left to the medical man himself." (1825) So much for the value of this kind of protection and control.

The medical witnesses did not deny the utility of these returns to a certain extent. (15427-14919) The cases being brought in weekly review before the medical officer, would serve to impress on his mind the importance of his engagement,—remind him of the necessity of due attention to his patients,—and furnish a register, from which might be estimated the amount of duty which he had performed in the year. The reports were also admitted to be valuable to the sick poor, as containing, together with a medical statement of their condition, recommendations for meat, broth, brandy, &c. &c., according to the requirements of each case. No excuse would therefore be left for an inadequate supply of aliment; but, as a means of controlling the medical officer, their inefficacy was sufficiently proved. If he were not a person of known integrity and humanity, and at the same time dissatisfied with his stipend, "no amount of vigilance which might be exercised in examining into the discharge of his duties, could have the effect of making him render full justice to his patients." . . . "It is possible ostensibly to perform the duties, and really to neglect them." (16423)

The recommendations of the medical officers with regard to the diet of the sick, although generally complied with, soon began to excite alarm in the minds of economical guardians. The gentlemen, who imagined themselves competent to decide on the amount of attendance required in illness, would not feel at a loss in determining the propriety of "full diet." Occasionally, however, they were in a dilemma, as appears from a case suggested by the chairman of the committee. (5139-5145) There might be two districts in a union, "the climate, circumstances, state of health, &c. being the same," in which the medical officers "might differ widely in their dietetic directions." One might be a follower of Brown, the other of Broussais, and the guardians, in the exercise of their authority, would feel it incumbent on them to pronounce judgment between the parties. (5139) The decision would of course prove anything but satisfactory, especially to the Brunonian. Dr. Kay, in reply, advised that the guardians should avoid any direct interference with individual cases, but merely summon the medical delinquent before them, and give him a "general admonition." The case of a refractory medical officer was next supposed, and here Dr. Kay could suggest no remedy but dispensing with his services, "at the end of his annual engagement." Then, again, the chairman of the committee was anxious to know what should be done, if there were no other resident medical practitioner, competent to undertake the care of the union, or disposed to obey the wishes of the guardians relative to the diet of the sick. Dr. Kay could see no other alternative than to import a medical man from London or some distant district, "though the necessity for such a step would be regarded as a misfortune." (5139-5145)

This part of the evidence suggests several important queries; for instance—Should the medical officer be compelled, under pain of dismissal, to adapt his mode of practice to the opinions of his unprofessional employers? Should his inadequate remuneration expose him to the suspicion of

ordering meat and beer, instead of expensive tonics and stimulants? (5154) On the other hand, should the guardians be compelled to furnish the precise amount of diet which any medical officer might see fit to prescribe? Should the latter, in fact, be constituted the *absolute* dispenser of parochial relief to the sick? To answer these questions with due consideration of the interests both of the rate-payers and the paupers, requires a calmer and more unprejudiced deliberation than could be expected under the present unsatisfactory relations between the medical profession and the poor-law authorities.

The frequent assumption of professional functions by the commissioners and guardians, has led to many acts of gross injustice towards the medical officers. Dissatisfaction with the union surgeon may have arisen on most insufficient grounds, yet, if the guardians have been determined to visit him with their displeasure, the commissioners have seldom, if ever, refused to confirm his dismissal. Mr. Gulson was candid on this point: "The interests of the commissioners and the interests of the board of guardians are directly *one and the same*; and the commissioners would *instantly* accede to the dismissal of an officer when the board of guardians desire it, because I give the board of guardians (in making that application) credit for not wishing the dismissal of an officer, except on good reasons." (1814.) The medical officer would stand but a poor chance against so powerful a combination; nor have the authorities at any time been slow to visit the frightful results of their own delinquencies upon the medical contractors.*

§ 37. The tenure of office by annual contract was more than once canvassed during the medical inquiry, as tending to diminish the value of union appointments in the estimation of respectable practitioners, and to discourage a zealous performance of duty. It was likewise irreconcilable with the principle, so generally admitted, that a public officer should continue to hold his appointment "*quamdiu se bene gesserit*." Even Dr. Kay, in apparent forgetfulness of these considerations, suggested that workhouse appointments, "being deemed desirable by the profession," might be held in rotation by several medical gentlemen during the year. But there appeared to the committee no sound reasons for depriving the poor of a medical attendant who had obtained their confidence, and had properly fulfilled his duties.

The commissioners, however, did not always recommend the annual termination of medical contracts. "When the guardians had tried the medical man," whom they introduced by tender, "and found that he was doing his duty satisfactorily, both to the poor and the other parties concerned,—that man," said Mr. Gulson, "ought to have a decided preference as to the continuance of his contract, and evil would ensue from making a change." (1730)

The proceedings of the commissioners on this, as on other points, were vacillating and inconsistent. In April, 1836, Mr. Secretary Chadwick, in reply to an inquiry of Mr. Wetherhead (a candidate for a medical office in the Strand Union) stated, "by order of the board," that the appointments of paid officers are *not* annual, but during

* Vide First Prov. Poor-Law Report, S Albans, Bromyard, &c.

good behaviour, &c.* The same official personage, in April 1837, informed Dr. Webster, also "by order of the board," that the appointments of medical† officers are annual." In fact, the only rule appears to be, the will of the commissioners for the time being. The principle of permanent appointments, so obviously just, was in practice confined to the protégés of the commissioners.‡ It was not applied to the established practitioners, whom these commissioners found "doing their duty satisfactorily both to the poor and to all parties concerned."

We have thus alluded to the principal circumstances tending to diminish the value and utility of medical appointments under the poor-law.

The probable results are thus stated by Mr. Farr. "If medical men attached to parochial offices (15794) feel themselves oppressed or degraded, this will drive away all but men of desperate fortunes, without any other resources. I think cheap services may be obtained, by making the service honourable, agreeable, or indirectly profitable."

Such considerations are the more important, because, as the same gentleman observed, "although the salary ought to cover the expense of remedies and journeys, it will necessarily be low, because the paupers themselves (15793) can afford to pay nothing; and because the rate-payers cannot and will not pay the ordinary price of medical attendance for the great mass of the pauper population."

§ 38. Your committee now proceed to consider the principle on which the poor-law authorities endeavoured to define the class of persons who were to be provided with medical relief, and to direct the discretionary power of the guardians as to its bestowal. Their main object appears to have been gradually to restrict the administration of medical relief within the same limits as relief in money or kind.§ In order to effect this, they found it necessary to induce or compel that numerous body of semi-paupers, which had been long accustomed to the former species of relief, "to provide it for themselves."

Besides the many *indirect* means adopted to attain this end, such as districts of large size, medical officers previously unknown in the locality, and inadequate remuneration, (already noticed,) there were some of a *direct* kind, the first of which was the simplest, viz. the restriction of medical relief to a smaller number *by refusing "orders."* Mr. Gulson admitted that in the pauperised districts, "not one half of the people were attended that used to be." (1715)

The disposition to deny relief was in many unions favoured by the adoption of a payment per case, a mode of remuneration which made it the interest of the parish authorities, and the duty

of the relieving officers, not to grant orders for medical attendance, if they could avoid it.

As may be supposed, the consequences of such a system were frequently serious and even fatal, and were only partially and occasionally mitigated by the inclination of the poor to seek gratuitous aid, and the humane readiness of the profession to bestow it.

Many of the sick poor were therefore left to the natural progress of disease. Yet Mr. Gulson did not hesitate to assert, that the authorities exercised their discretion with regard to medical relief, "humanely, and very liberally." How is this to be reconciled with his admission just quoted? Even were it judicious and necessary, (which we do not believe,) to refuse *one half* of the former recipients that assistance to which they had been accustomed, most certainly it was neither "liberal nor humane."

The obvious intention of the poor-law authorities being to diminish the supply of medical aid, it is not surprising that the parochial officers, who had the power of ordering such relief absolutely under the law, were unwilling and afraid (though nominally empowered) to grant it under the new law. They were, in fact, checked and controlled in the exercise of their discretion, and subject to pecuniary risk. And although, when they understood their duties better, (14956,) the inconvenience was partly remedied, and greater facility afforded than at first, yet they were obliged to bear in mind the principle adopted by the commissioners and guardians. When, therefore, Mr. Gulson attempted to show that the poor are "better off" under the provisions of the new law, *because* they are allowed to apply for medical relief to "a greater number of officers," (the guardians and relieving officers, in addition to the parties formerly employed to grant it,) he overlooked the preceding considerations, no less than the fact, (resting on his own authority,) that "*one half*" of the former recipients were refused relief.

The readiness of the medical men to grant gratuitous assistance was counted on to meet the diminution of the parochial supply, by those who were bound duly to provide for the necessities of the sick poor; and thus the public came at last to claim that as a right, which the profession had long granted as a favour; for instance, the chairman asked an assistant-commissioner, (4353,) "Do not you think that the refusal to attend a poor man without an order," (and therefore without security for payment,) "would be most discreditable to the medical officer?"

So that the shameful dilatoriness of the officials entrusted with the supply of orders was to find its remedy in the disinterested promptitude of the medical officer to grant relief at his own risk! (4552.) The association cannot be too often reminded that, on this principle, any practitioner is liable to the charge of inhumanity for a refusal to perform unremunerated services.

Nothing could justify so extensive a claim on any portion of the community, unless, indeed, that portion were maintained by the state for the benefit of the public. This the country never yet has done for the medical profession, and therefore its members are absolved from the necessity of self-immolation for the public good.

§ 39. In some unions, orders were given more liberally, that is, wherever the contract was at a

* Med. Gaz. vol. xx. p. 367.

† Ibid. p. 330.

‡ The cause of this favouritism was thus stated by one of the medical witnesses—"I imagine that a kindly feeling and sense of mutual obligation has risen up between the guardians and the stranger by whose means they have been enabled to obtain their economical object; and those feelings influence the guardians to retain the stranger in his union appointment, though the plea on which he was introduced is relinquished. I have heard a guardian say, 'We do not like to abandon a gentleman who has helped us out of our difficulties.'" (14844.)

§ Their circular of March 1836 contains the following passage. "There is danger . . . that when relief in money or in kind shall have ceased in a district, relief in medicine may still prevail: and that the habits of dependence on parochial aid may thus be continued."

fixed sum, and where any increase in the number of orders was not followed by a proportionate addition to the salary. (14933-15378)*

This had been the case under the former law. Mr. Power thus described it, (4181)—“the salary being a fixed amount, and the liability of the medical man being indefinite by that contract, there was a tendency, on the part both of the rate-payers and the poor, to extend the liabilities; the poor considered that there was a fixed sum to be paid for the relief of the poor, and that it would cost the parish nothing to obtain an order upon a medical man; and the rate-payers regarded it in the same point of view.” It was also remarked by one of the medical witnesses, (14931) that “when the orders are given so freely, a proper discretion is not used with regard to the circumstances of the parties who receive them.”

Mr. Power also stated, (4260) that “the old contract was definite with respect to the salary of the medical man, but indefinite with regard to his liability of being called upon to attend under that contract.”

The whole burden of this liability fell not on those whose duty it was to bear it, but on the medical officers.

In attributing motives (4181) to the medical profession, for apparently acquiescing in so unjust an arrangement, Mr. Power and the central board forgot the most obvious; viz. a humane reluctance to dismiss the suffering applicants, without such assistance as it was in their power to bestow.†

The next *direct* method which the commissioners recommended, to induce the poor to provide themselves with medical attendance, was the establishment of medical clubs. It was evident that the labouring classes could not pay the ordinary price for advice and medicines. “The obtaining medical relief, independently of the parish, is a very serious matter to a labouring man,” said Mr. Gulson. (1839) Even if it were afforded by loan, at the usual rate, the difficulty would be but little diminished. “Suppose,” inquired the chairman, (1876) “the amount of medical attendance should be 5l. or 6l., what happens in such a case with regard to the recovery of the money?”

“I should advise the board of guardians to apply (replied Mr. G.) to the magistrates to recover just that portion of the 5l. or 6l., which in their opinion the pauper could fairly pay; and that would go to the medical man, and free the patient from being a pauper;” that is—*free him from his just obligations*, in order to relieve the

* Mr. Farr stated the following remarkable fact:—“Half the pauper population of the county of Devon appears to be attended on the per case system; in the other half, the medical officers are paid by fixed salaries.

“In the unions where the salaries are fixed, sixty-eight cases, out of a population of 1000, are annually attended by the parochial surgeon: where the payment is per case, the proportion is fifty in the 1000.” (18774)

† Mr. Farr’s evidence again deserves quotation. (18787.)

“It should be borne in mind, that the great mass of the labouring population have been led to expect a public provision of medical advice, and that it should therefore be withdrawn very gradually, or not withdrawn at all; it is a heavy expense, occurring when the labourer is producing nothing, and when he is suffering, and is an object of pity. It cannot lead to the same abuse as relief in aid of wages, or as relief afforded when the labourer is out of work. No one, with a human heart, can deny relief to the sick; medical men cannot. If a poor man came to a medical man, and he was conscious that that poor man could never pay him, the medical man must go to him. If it were a case of emergency; such being the case, I think, the public should provide that man with medical relief, and that he should not be thrown entirely upon the charity of the medical profession.”

parish! Whatever might be thought of the honesty of this mode of paying debts, its impracticability must soon have become apparent. The commissioners therefore resolved to reduce the price of this benefit for the working classes, but found that no such reduction, as was necessary for their object, could be effected with the consent and approbation of the profession in general. They soon, however, devised the means of overcoming this obstacle. By making the establishment of a club, one of the conditions of a medical contract;* by determining the rate of remuneration in that club; and by threatening to appoint a stranger, in the event of objections, they succeeded in some places for a time in carrying their point.

It signified little whether the guardians absolutely determined the rate of subscription from the poor contributors, (as Mr. Power requested them to do in his circular of February 1836,†) or whether they only “stood in the place of one of the parties contracting,” (according to his subsequent explanation,) because, even in the latter case, they were advised to “fix” the sum that was “to be offered,” (4211), and if it were refused by the medical practitioners, “recourse must be had to the system of contract by open tender.” And what was this but an attempt to coerce the established practitioners, by requiring them, *under the penalty of competition from a distance*, to attend parties, *not* under the control and management of the guardians, on terms of their dictation.

Mr. Gulson, indeed, (1916) would not allow that it could be called coercion to “hold out to a man a certain bargain upon certain conditions, and leave him to accept it or not as he pleases.” But Mr. G. could not have been ignorant that the rejection of the guardian’s offers might prove so injurious to the medical practitioner, that he might feel himself *compelled* to accept them, as the lesser of two evils.

Even supposing, for the sake of argument, that the working classes would benefit by the establishment of medical clubs, your committee do not hesitate to deny the right of the poor-law guardians to interfere in their formation, or in any manner to attempt to *force* them on the profession. The commissioners have, however, on several occasions, recommended this arbitrary proceeding; for instance, at Ely, a proposition was made to the medical gentlemen to adopt the club system, viz. 5s. for man and wife; 3s. for a single person; and 9d. for every child per annum. The resident practitioners resisted the proposition; and Colonel Wade, the assistant commissioner, conceiving that they might be intimidated into compliance, proposed “to send down a young man from town;” but this threat having failed in its intended effect, he next informed the board of guardians that if he sent a stranger, “they must be prepared to give more liberal terms than had been offered to their old medical officers!!”‡

In the Camberwell Union, Dr. Webster and another gentleman were dismissed for refusing to establish these clubs. This circumstance probably led to the excellent remarks which we now quote

* This condition was frequently expressed in advertisements for medical officers—e. g. Bradfield Union.

† Second Annual Report, p. 979.

‡ Even self-supporting dispensaries have advertised for “new men,” when the resident practitioners declined any connexion with these institutions. (1924.)

from the report of the British Medical Association* "Hitherto the poor-law commissioners, in their medical arrangements, had only contemplated the objects under their own authority, viz. paupers; but as if to complete the degradation of the profession which had been previously begun, the plans and remuneration, which were disgraceful even when applied to paupers, were to be extended to all the classes included between them and the middle ranks of society; mechanics, artisans, handicraftsmen, domestic servants, and independent labourers, were invited, entreated, and almost compelled, (for the wishes of the rich and powerful are too frequently laws to the poor,) to join the poor-law, (or, as they are named, the 'independent') medical clubs."

The medical attendance thus afforded would obviously emanate from the guardians, and form a part of the union contract; yet did the commissioners describe it as an effort of the poor "to provide, out of their own resources, good medical attendance in case of sickness." (4194)

But how could these "resources" be termed "their own," when the guardians prescribed both the duties and the terms of the medical attendance? "The actual means of obtaining medical relief do not come from the poor," (4280) when a certain system, to which they are virtually compelled to contribute, is forced upon their medical attendants.

The small sum, paid periodically by the "independent" members, was not the price of medical advice, but a sort of composition, which exempted them from the serious delay and annoyance of seeking an order from the relieving or parish officer, to which the other paupers were subjected. Their real dependence on the guardians and on the medical profession continued as before; "they were obviously still paupers, as every one must be who is dependent for assistance on the expressed or implied condition of a parish contract."

The guardians hoped to secure a twofold advantage from the establishment of a medical club: first, by admitting a class of poor subscribers, they might get rid of a number of applicants for medical relief; and secondly, by annexing the independent club to the pauper contract, they might increase the importance of the appointment, and reduce the terms of the contract. The working of the system, in its most obnoxious form, is well shown by Mr. Power's evidence, (4223) a part of which we quote.—"In the parish of Kirtling, the doctor's salary, including everything, was formerly 15*l.* per annum.† The union now only pays him 5*l.* i. e. 2*s.* per head for fifty individuals on the permanent sick list; but there are eighty families subscribers to the independent club, which, at 4*s.* per family, adds 16*l.* to the medical officer's stipend: he therefore gains 6*l.* by the alteration, and the parish 10*l.* There are other parishes where the plan succeeds equally well for all parties; and I observe that in those parishes where the medical officers are all paid, either no pains have been taken by the guardians and parish authorities to form independent sick clubs, or the poor have themselves formed them, and appointed the doctors to whom they had hitherto been accustomed, instead of the medical officers of the districts, who may happen to be most popular. This latter practice is cer-

tainly some drawback to the means of remunerating the medical officers of the union. The boards of guardians can, and of course do, recommend their own officers to the independent clubs; but beyond that, it would be very impolitic to interfere."

The contributions of the poor were thus appropriated by the guardians, to assist in making up the salary for their medical officer. It is clear, therefore, that they viewed the whole labouring population as entirely at their disposal, with regard to the provision of medical relief: yet they affected to consider them as "independent" subscribers!

EAST OF SCOTLAND ASSOCIATION.

THE following resolutions have been adopted at a recent meeting of this association.

1st. That the Council has observed, with extreme regret, the custom of publishing paragraphs in the newspapers for some time past, laudatory of the operations and mode of treatment employed by certain practitioners in various diseases; such means of making public their practice being calculated materially to injure the respectability of the medical profession.

2d. That, as one of the great objects of the association is the suppression of quackery in all its forms, the council would earnestly impress on all the members of this association, and the profession in general, the necessity of exerting themselves to discourage and prevent such proceedings for the future.

ASIATIC CHOLERA.

WE regret to learn that this disease, which it had been hoped had abandoned Europe, has just broken out in the environs of Trieste, where a report was current that the cholera had also made its appearance at Vienna.—*Exam. Med.* No. III.

BOOKS RECEIVED.

Second Annual Report of the Eastern Medical Association of Scotland.

Medicinische Fragmente, &c.; or, A General History of Sea-bathing and Salt-water Baths, with Remarks on the identity of Cow-pock and Small-pox. By Dr. Carl Mühry. Hanover, 1841.

On the Application of the Collegiate System to the Medical Schools of the Metropolis. By the Rev. J. H. North, M.A. Churchill, London, 1841.

Catalogue of Plants collected in the Neighbourhood of Banbury. By George Gulliver, F.R.S. Tilt, London, 1841.

An Essay on the Chemical, Botanical, and Parturient Virtues of the Secale Cornutum. By T. H. Wardleworth. Simpkin and Co., London, 1841. pp. 69.

Printed by THOMAS IBOTSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JOWAN PALMER, of 30, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS ROMNEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, July 23, 1841.

* *Lancet*, p. 751. 1837-38.

† Not including suspended orders.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

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ON THE PHYSICAL ALTERATIONS OF THE BLOOD AND ANIMAL FLUIDS IN DISEASE.

By M. ANDRAL.

No. VI.

(Continued from p. 325.)

SERUM.—The quantity of serum which surrounds the clot often represents correctly the actual quantity in the blood, especially when the clot is small and dense; but a large clot retains a considerable quantity of serum. The colour of the serum may be greenish, yellow, reddish, or of a milky tint; these differences depend on the presence of some globules mixed up with it. The saffron yellow colour often depends on the presence of the colouring matter of the bile. The white serum bears some resemblance to skimmed milk, and by some writers this appearance is thought to depend on the presence of milk in the blood. It is produced, however, by an increased quantity of fatty matter in the blood.

The density of the serum in different diseases is little known; M. Rayer has bestowed some attention on this point, and obtained several interesting results. In Bright's disease, the density of the serum is lessened, from the elimination of albumen: the loss of globules will also diminish the density of the serum; in acute inflammation the same effect is produced by the diminution of globules; and in sclerema, M. Chevreuil has observed that the serum which separates from the clot, presents a very remarkable gelatinous appearance.

COLOUR OF THE BLOOD ON BEING DRAWN.—Authors speak of white blood, but we can give little credence to such an idea. The blood may be paler than it should be, as in anæmia, and in persons of nervous temperament; in other cases it may be of a very high colour, when the proportion of globules is great. Venous blood may assume an arterial tint. Burdach thinks that this tendency depends on increased activity of the nutritive and secretory organs, but this is mere hypothesis. When a person has lost a great quantity of blood, that which flows towards the end is of a vermilion colour; the same occurs in weak persons, and near the close of a long convalescence. If we examine a collection of globules, their colour appears to be deeper; it has been asserted that the blood becomes red more quickly in inflammation, but this has not been clearly proved. Some physiologists have endeavoured to ascertain the effect of irritating the nervous system, on the colour of the blood; Kremer found that venous blood assumed the arterial colour from four to ten minutes after division of the nerves of

the arm. When the nervous current was replaced by a galvanic one, the blood flowed in a dark or vermilion stream, according as the galvanic influence was interrupted or kept up. On the other hand, Arneman asserts that division of the nerves renders the stream of blood more black. Dr. Rosi, of Turin, on examining the blood of a person while being electrified, found that it was of a vermilion colour, and Authenrieth thinks that the red is deeper during summer. It has been said that certain diseases, and particularly those depending on miasma, have the effect of giving the blood a dark tinge. Stevens informs us that in the bilious remittent, and yellow fevers of America, the blood is darker than natural, and the upper surface of the clot does not become red; other writers describe a similar appearance of the blood in typhus fever, malignant fevers, and in certain epidemics amongst cattle. We must, however, accept these assertions with very considerable reserve, because they seem to be founded on prevailing theories respecting the action of miasma.

ODOUR OF THE BLOOD.—Some authors speak of blood which emitted so fœtid an odour, that all those present were struck with it. Morgagni mentions an acid odour emitted from the blood of patients affected with intermittent fever, periodical headaches, and itch. The blood of persons labouring under small-pox and typhus fever, has, it is said, a bad odour, but this has never been observed in modern times. According to Stevens and Rusch, the blood gives out a characteristic odour in yellow fever.

TASTE.—M. Lecanu observed that, in Asiatic cholera, the blood loses its usual saltish taste. Lower affirms, that in rachitic persons, the blood has an acid taste, but this probably was an imagination.

TEMPERATURE.—We know, positively, at the present day, that the temperature of the human body is not fixed; does the same hold good with respect to the blood? We cannot tell. No experiments have been made to ascertain the temperature of the blood, and we can readily conceive the insurmountable difficulties in the way of any such investigation. Were we to judge of the temperature of the blood from that of the skin, we should say that it varies from 96 deg. to 104 deg. Fah., and never falls below the normal temperature, for even during the cold fit of ague, the heat of the body and skin is elevated. It has been stated that the blood is colder in Asiatic cholera than in other diseases.

ELECTRICITY.—Bellinghieri made some experiments on the electric conditions of the blood, from which he draws the following conclusions:—

1. The quantity of electricity manifested by the blood is diminished during acute inflammation, and falls in proportion to the intensity of the inflammation.
2. In chronic asthenic diseases, the quantity of electricity is increased, but when general reaction sets in, it falls.
3. Blood which

furnishes a buffy coat contains more electric power than other blood, and when we find an increased quantity in the blood, we may be certain that it will not coagulate; the more fibrin it contains, the less electrical power does it manifest.

CONSISTENCE OF THE BLOOD.—The degree of consistency of the blood which is contained in its vessels, corresponds with that which exists when it has been abstracted from them; if fluid, and of little consistence when drawn from a vein, we may conclude that it possesses the same properties while circulating: when the consistence of the blood is slight, it has a great tendency to escape from its vessels. Blood which contains a considerable proportion of fibrin, has quite an opposite tendency; in a word, the consistence corresponds exactly with the quantity of fibrin. In the earlier schools of medicine a good deal was said about thick and thin blood. The doctrines of Boerhaave's school reposed entirely on the greater or less consistence of the blood, that is, on a fact, the existence of which was by no means demonstrated. Boerhaave thought that thick blood became arrested in the vessels, and thus caused obstructions; in some cases this increased consistency was said to be spontaneous; in others to depend on fever, which was thought to have the effect of throwing off the more fluid parts of the blood, by exhalation and secretion; the inflammations occurring during the course of fever, depended on this thickening of the blood; in the same school it was taught that certain chemical principles were formed in the blood, which developed this thickening. Some modern teachers have adopted a portion of this theory. M. Magendie has endeavoured to show that several disorders depend on a viscid state of the blood; he mixed with the blood some gum and starch, and found that when thus altered it became arrested in the lungs; pulmonary congestion was the consequence, and the animals died in a state of asphyxia. When very finely powdered charcoal was mixed with the blood, it merely occasioned some difficulty of breathing which soon passed off: we may conclude from these experiments, that if the blood be rendered too thick, certain disorders are excited which depend on obstructed capillary circulation.

But we may ask, does anything analogous take place in the economy? does the blood really become thicker in certain diseases? We may suspect this to be the case, but it is impossible to demonstrate it. Some writers assert that the retarded circulation in cholera depends on the viscosity of the blood; but this idea is refuted by our not finding the pulmonary congestion which always occurred in M. Magendie's experiments. In former times, much stress was laid on the spontaneous coagulation of the blood in its vessels. Stahl relates the case of an epileptic female, whom a surgeon endeavoured to bleed, but was unable to obtain a drop of blood; he divided the vein at another place, and extracted a long coagulum, which filled up the vessel. M. Andral observed an exactly similar case at La Charité, about two years ago; the patient died, and, on examining the body, several other clots were found in different parts of the vascular system. It has, also, been said that an acid has been developed in the blood, but this has never been proved; perhaps, in some cases of poisoning with sulphuric acid, a certain quantity of the latter may be ab-

sorbed, and give rise to the coagulation of the blood. M. Bouchardat has observed a case of this kind: a man swallowed some sulphuric acid; one of his lower extremities became very cold, and, on examining the body after death, the whole of the femoral artery was found filled with a clot; the author likewise assures us that he discovered sulphuric acid in the blood.

COAGULATION OF BLOOD IN THE HEART.—Ancient authors frequently mention the clots found in the cavities of the heart; they denominated them *polypi*, and thought that they were the cause of various symptoms and affections, which a more intimate knowledge of morbid anatomy enables us to explain. The most obscure point connected with the history of these clots is the period of their formation. The clot may be composed entirely of fibrin; it is then colourless, or of a whitish yellow tint; if the clot contain any globules, it is more or less red; sometimes the globules are disseminated through the clot, and give it a striated appearance, which bears some resemblance to vascularity. The white clots are the firmest; the red ones are soft: the manner in which they adhere to the heart varies considerably; sometimes they are interlaced with the valves; sometimes adherent to the lining membrane by means of a false membrane which envelopes them, but this adherence does not prove that the clots were formed before death; they are analogous to those which unite the blood to the sides of the vessel into which it has been received.

The diseases in which we find clots most frequently are diseases of the heart; 1st, because the contractions of the heart are irregular and frequent; 2d, because the openings are contracted and mis-shapen, or altered in a manner which favours the coagulation of the blood; 3d, because the lining membrane of the heart is often rough and irregular. We can, also, understand how viscid blood may be more liable to coagulate and form clots. M. Andral has never observed vessels in these clots, and does not regard the red striae as proof of the existence of vessels. Some writers assert that they may be injected through the coronary arteries; but the appearance may be deceptive; it has, likewise, been said that the presence of pus in these clots shows that the latter have been formed during life; but the pus being mixed with the blood, we can readily understand how the coagulation of the latter after death may cause the former to be enclosed in the clot. Some say that the pus is a secretion from the clot itself; but were this the case, we should find so perfect a state of organization, that we could easily determine the date of the formation of the clot. Hence the presence of pus in one of the clots in the heart does not enable us to determine its exact nature; the symptoms are equally deceitful. Fainting fits, palpitation, matity, morbid sounds, &c. may depend as well on disease of the heart, as on the presence of clots, and as the latter usually coincide with the former, we are at some loss to attribute the symptoms to their true cause. From the above reasons we are led to conclude that the formation of polypi in the heart is rare; still we cannot affirm that the older writers were always deceived on this point. Morgagni has examined the subject most carefully; and Senac, in his excellent work on diseases of the heart, has studied

the various appearances which the clots may assume.

The blood may coagulate in the vessels of the lower extremities; this depends on inflammation and ossification of the arteries; sometimes, however, we can discover no change in the blood-vessels; the limb gets gradually cold; the pain is so severe that opium is unable to calm it, and the extremity becomes gangrenous. Coagulation of the blood in the veins depends on phlebitis, or compression on the vessel; according to M. Andral, these are never sufficient to produce gangrene. When the veins are filled with clots during life, we feel hard, knotty cords under the finger, and this symptom alone will furnish a diagnosis.

CASES

FROM THE EARLY NOTE-BOOKS OF THE LATE

SIR ASTLEY COOPER, BART.

EXTRACTED WITH PERMISSION OF S. B. COOPER, ESQ.

No. VIII.

ENLARGED PROSTATE WITH RETENTION.

Mr. —, of Steward Street, Spitalfields, aged 64, was attacked with suppression of urine on the 24th of August, 1800, early in the morning. I passed a prostate catheter into his bladder without any particular difficulty, and drew off his urine. The approach of this suppression had been gradual for the last two years: the stream had been gradually getting less; the inclination to make water more frequent, and the time lately required for passing it was about ten minutes. He had left off a flannel waistcoat, and this checked his perspiration, and seemed to be the immediate cause of the suppression.

As he made no water during the day, it became necessary to repeat the introduction of the catheter in the evening.

The catheter required is one of unusual length, and it is necessary to raise its end when it reaches the neck of the bladder, by depressing the handle, by which means it is raised over the swollen and projecting part of the prostate.

Monday 25th, 8 o'clock.—I passed a catheter, as he did not discharge a drop of water. In the evening it was again obliged to be done; the urine is getting high coloured.

Tuesday.—The catheter was introduced three times. He went into a bath at 55 deg., which did not make him perspire, and gave him no relief. His urine is very high coloured and offensive.

R. Tinct. Opii. Uv. urs. R. Pulv. Antim.

Wednesday.—Called at six in the morning to him: he had passed a painful and restless night. I passed the instrument with more difficulty, as the parts seemed considerably swollen. The urine is bloody and offensive, and he has had during the night a bloody discharge from the urethra.

I passed an elastic catheter with ease, but he could not suffer it to remain.

Thursday.—I found the urine passing off involuntarily.

Friday.—Considerable discharge of mucus in his urine; seems to be sinking. His pulse is

quick—he has no appetite, and sleeps a great deal.

In this way he continued for a week, when he expired, worn out by pain and irritation.

RETENTION OF URINE FROM STRICTURE.

Mr. —, of Lothbury, had a gleet from January to August; he was then attacked with suppression of urine, which was found to proceed from a stricture about seven inches down the urethra. He was made to bleed by attempting the passage of a bougie, which did not succeed, but he made water immediately after in a small stream. He passed a painful night, making no water; and the next morning I put him into a warm bath, when a catheter passed with ease, and he discharged a considerable quantity of urine, whilst in the bath, by his own efforts. After this, he made water during the day frequently, but in a small stream.

A bougie was used, which cured him.

SYMPTOMS OF STRICTURE SUCCEEDING A GONORRHOEA.

Discharge—pain in making water. Stream less than natural; frequent inclination to pass urine; rest broken by this inclination, requiring to be indulged two or three times in the night. Breaks wind when the urine is discharging. Has a discharge of mucus, which appears at the bottom of the urine. Is sorer, and has more discharge after connexion. His wife has had, and still continues to have, children, notwithstanding this strictured state of the urethra.

ABSCESS.

Mr. — was advised by Dr. — to consult me on account of a soreness in his throat, and a difficulty in swallowing, which was so great that twenty efforts were necessary to enable him to swallow a mouthful. Upon looking into his throat, I saw the fauces on the right side and posterior part inflamed and projecting, and when touched I could perceive a fluctuation. In four hours it had become very considerably enlarged, attended with great difficulty in swallowing, and considerable impediment in speaking. I pushed into the swelling a hydrocele seton needle, which discharged a considerable quantity of matter, more especially when the larynx was pressed upon. His difficulty in breathing and deglutition were removed in a few minutes.

INTROSUSCEPTION.

A patient of Mr. —, a boy, had a purging; he was called to him whilst in a convulsive fit. He had been troubled with purging and pain in the belly, which was soft but large; mouth aphthous; was occasionally sick. Soon after the fit he had a bloody stool. Jalap and calomel, &c. He was better for four days. Two days before it died, its belly swelled, and it complained of great pain, which continued until its death. Neither physic by the mouth nor the glysters which were given it had any beneficial effect.

Upon examination, an intussusception was found of the sigmoid flexure of the colon. There was not any inflammation about the other intestines. The cæcum and colon were much distended and extended.

DISEASE OF THE LUNGS.

Sunday, March 1.—I examined the body of a nephew of Dr. —. It died at the age of seven months. At three months it was attacked with cough, which continued, notwithstanding all the remedies used, until its death. The cough was unattended with expectoration, but was sometimes accompanied by an appearance of strangulation, and a sonorous noise like that occasioned by the croup. Nine days before death, it was seized with symptoms of fever, which resisted all methods of cure pursued, and it gradually grew weaker until its death.

Post-mortem examination.—On opening the thorax, the lungs were not found adherent at any place. The forepart of each lung appeared healthy, except that here and there a small bladder of air appeared, owing to its having escaped from the air-cells. The back part of each lung was solid, and more compact to the feel than natural. It was of a purple colour both on its outer and inner side. About half an ounce of this and also of the other part of the lung being thrown into water, that from the posterior part fell immediately to the bottom, and the other portion floated on the surface. The trachea and larynx were full of mucus, and the bronchial tubes contained pus in the unsound part. The abdomen was healthy. A purge had been administered an hour or two previous to death, and all feces had been removed, but the bowels were full of air. In the brain nothing extraordinary appeared.

Remarks.—I conceive the bladders of air on the sounder part of the lung were owing to that part having the whole of the office of respiration to perform, and hence, more air than common being received into these cells in the act of coughing, it was forced from them into the cellular membrane of the lungs.

The disease, I suppose, had been going on from the third month, and when it had become considerable, produced the symptoms of general fever and irritation which destroyed the infant.

FRACTURE WITH DEPRESSION.

I trepanned a man at Guy's Hospital, who had been thrown from a cart by a dray striking against it, and fractured his skull. The os occipitis was broken across and loose. He was insensible, and was gradually becoming more so. I took out two pieces of bone from the os occipitis, but found but little extravasation.

The pericranium was detached, and the dura mater separated to some extent. This man's pulse was slow and small, he breathed three or four times lightly, then once deeply with stertor. He was sick so as to vomit. When trepanned, he called out to his horse as if still in his cart. He vomited immediately after the operation. His pulse rose after it.

A lad four years old was placed upon a blind horse by his father, on which he was to take a ride with him into the country. In passing the Borough High Street, a cart was driven against the horse, which fell, and the wheel of the cart passed over the boy's head. He was taken up insensible, and a small wound was found in the scalp where the wheel had crossed.

Wednesday.—Sensible; could call for what he wanted. His pulse was small, and he was sick on

bringing up blood from his stomach; he was relieved of the sickness, and his pulse rose.

Thursday.—Sensible; his pulse good.

Friday.—Quiet and sensible.

Saturday.—Pulse slow and very irregular. Intermits every seventh stroke. A purge ordered, and it became natural when it had operated. The feces discharged into the bed.

Sunday.—Sensible; quiet, but hungry. He was indulged with bread and butter. At three o'clock convulsions came on. His arms and fingers were in constant motion. These symptoms continued until his death, which happened at three o'clock on Monday morning.

Dissection.—On the opposite side of the head to that which the wheel passed over, was found a fracture and depression of the os frontis.

The back part of the orbit was also broken, and the bones so far separated as to admit of the passage of my fingers into the orbit.

The brain was lacerated, and a part of it had escaped through the aperture of the broken bones under the scalp, where there was rather more than a tea-spoonful. No operation could have relieved him.

ACCOUNT OF AN APPARATUS

FOR

APPLYING WATER IN THE MANNER OF IRRIGATION.

DR. JAMES MACARTNEY, M. D., F.R.S., &c.

The term *irrigation* has been adopted by some French surgeons to express the continual watering or wetting of inflamed parts. The manner in which this remedy is used in the Hôtel Dieu, and some other French hospitals, is very imperfect. A bucket holding water is suspended to the top of the bed exactly over the afflicted limb of the patient, on which the water continually drops, from a cock half turned, that is inserted into the lower part of the bucket. The bed is covered with a sheet of painted linen, over which the water flows, and is collected in another bucket placed on the floor at the foot of the bed.

This mode of applying water makes it necessary that the patient should be in a great measure uncovered, and that the whole of the limb should be soaked with the water. The dropping of the fluid from a height also produces a startling and disagreeable sensation. The remedy, consequently, is only fit to be used in warm summer weather.

In order to obviate this objection, I have contrived an apparatus expressly designed for irrigation, by means of which water of any requisite temperature can be employed, and conveyed to the affected part underneath the bedclothes. The apparatus consists of a box made of zinc, something like a fracture-box, in which either the upper or the lower extremity of the patient may be placed. The water, or a medicated fluid, is carried in a flat tube, which at one end is connected with the reservoir, and the other end projects through a slit in the upper edge of the box. The tube contains a strip of coarse woollen cloth, which is broad at one end and pointed at the

other. The broad end is received by the vessel that contains the fluid, and the painted end either rests upon the dressings of the affected part, or is suspended immediately over them. The water is taken up by the strip of cloth, and carried along it on the principle of capillary attraction, or in the manner of a syphon; and thus a continued supply of water is conducted to the part, affected, without inconvenience or exposure to the patient. In order to get rid of the fluid, there is a concave bottom, perforated with large holes, through which the fluid passes into the inferior part of the box, and from which it is conveyed by a tube into any vessel that may be placed outside the bed for the purpose of receiving it. The perforated bottom, for the sake of cleanness, is made to take out; and there is a soft cushion, covered with painted linen, on which the limb rests, and consequently the whole is not kept wet.

The quantity of fluid which may pass can be regulated by placing the vessel or reservoir containing the water either higher, or on the same plane as the patient's bed. If placed high, so much as three gallons of fluid may be supplied in the course of twenty-four hours. If warm water be required, as in cases of strains and lacerated wounds, the temperature of the reservoir may be kept up by means of a spirit lamp.

The irrigating machine is made and sold by Messrs. Weiss and Son, instrument makers, 63, Strand, London.

The advantages of such an apparatus as I have described are sufficiently obvious to all persons acquainted with the effects of moisture at different temperatures, according to the nature of the injury, in appeasing the sensations, and in preventing or abating inflammation.

CASE OF COLICA PICTONUM, WITH BLUE DISCOLORATION OF THE GUMS,

By HENRY JOHNSON, M.D., Shrewsbury.

(Read at the Anniversary Meeting of the Shropshire and North Wales Branch of the Provincial Medical and Surgical Association.)

Thursday, July 8, 1841.

In the 23d volume of the Medico-Chirurgical Transactions, there is a paper by Dr. Henry Burton, "On a remarkable effect upon the gums, produced by the absorption of lead." A few days after I had read this paper, a case occurred in which I noticed this phenomenon, and, with the permission of the Association, I will read a brief account of it.

Jan. 7, 1841.—I was desired to see William Benson, æt. 49, a plumber. He complained of constant aching pain at the epigastrium, which was very much aggravated at intervals. He had also pain in the knees, ankles, arms, and in the tendon of the pectoralis muscle. These pains were not increased by pressure or motion. The tongue was white and moist. Pulse soft, not quick. The bowels were confined, and the appetite was generally craving.

He stated, that about a fortnight ago he was in his usual state of health, and was at work in Wales laying down some lead pipes, in which occupation he was much exposed to cold, and thinks

his present illness, which has only lasted about a week, was brought on by that exposure. His bowels are habitually inactive, three or four days passing without a motion. Has been a plumber several years. On looking into his mouth, I discovered the peculiar blue line on the gums, as described by Dr. H. Burton in the Medico-Chirurgical Transactions. The edge of the gum, where it is attached to the neck of the teeth, was fringed with a very distinct blue line, about one-twentieth of an inch in width, so that three or four of the molar teeth on each side in the upper jaw were thus half surrounded towards the roof of the mouth with a blue crescent.

Active purgatives were administered.

8.—All the pains better; almost none in the lower extremities. Has had no sleep. Epigastrium slightly tender. Pulse 96, soft. Thirst and retching. Bowels freely moved. Stools dark and scybalous. Repeat the purgatives.

9.—Has had some sleep. Four stools. No scybala in the last, but dark and bilious. Pains much abated. Pulse 84. Urine high coloured and turbid. Tongue very white and moist. Some appetite.

R Calomel, two grains,
Opium, one grain,
Antimonial powder, three grains.

A powder to be taken every sixth hour.

11.—Hardly any pain in the stomach. Bowels regular. Appetite improved, and sleep returning.

17.—Quite well. The blue line still visible, but more faint.

REMARKS.—This is the only instance in which I have observed the phenomenon pointed out by Dr. Burton. He, however, has seen it in many cases, and suggests its presence as a valuable diagnostic sign in derangements of health, caused by the accidental introduction of lead into the system. But, it is unnecessary for me to quote farther the particulars of this paper, which may be in the hands of every member here present. Dr. Burton makes no attempt to explain how the coloured line here spoken of is produced. The following explanation has occurred to myself:—

It appears that lead, when taken into the system, has a peculiar tendency to affect the salivary organs, producing an increased flow of saliva. From this and other facts, it is probable that it enters the mass of blood, and circulates therewith over the whole body. The salivary glands are stimulated to increased action by its presence, whilst another operation goes on in the gums. From the decomposition of particles of food, the decay of teeth, or the putrefaction of the tartar, it is probable that the mouth of almost every one contains at times a small portion of sulphuretted hydrogen. Even among those who clean their teeth, and therefore do what they can to remove the above sources of this gas, I have repeatedly found that a slip of paper, impregnated with a solution of lead, in a few minutes gave a trace of this gas, by becoming slightly discoloured.

Now, it is easy to understand how the sulphuretted hydrogen, acting upon the lead within the vessels of the gums, precipitates the sulphuret of lead, which, remaining in the substance of the mucous membrane, imparts to them the peculiar blue tinge above described; and this occurs only at the dental margin of the gums, partly, perhaps,

on account of the thinness of the membrane at this point, and also on account of its proximity to the tartar of the teeth, one great source of the sulphuretted hydrogen.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, JULY 31, 1841.

THE anniversary meeting of the Provincial Association takes place at York during the ensuing week. Perhaps no one of these anniversaries has before been held in which questions of such vital interest to the medical profession were submitted to the consideration of the members, as are likely to come before them on this occasion. The reform of our medical institutions, and the organization of the profession on just and comprehensive principles; the operation of the poor-law in regard to the administration of relief to the sick poor, the mischiefs resulting from the unrestrained practices of empirics, the necessities of the benevolent fund, must all more or less engage the attention of the members assembled, in addition to other subjects—subjects of scientific or practical inquiry, more immediately connected with the primary objects for which the Association was originally constituted. The feverish impatience with which the devising of a special form of organization for the profession, was at one time looked forward to as the panacea for every grievance under which medical practitioners of all classes are more or less suffering, has given way to a more just and rational mode of viewing this great question. In the discussion which it may be expected will take place, the calm and temperate counsels of those who have long considered and well weighed the subject in all its bearings, will now be listened to with attention, and in any decisions which may be come to, we feel assured that no hasty or ill-digested attempts in favour of specific remedies for evils deeply-rooted and of long duration, will meet with the approbation of the meeting.

The object which the Provincial Association has in view, is not the advancement of any Utopian scheme of fancied perfection, but the obtaining of an efficient and equitable arrangement, by which the whole profession may be so united and organized as to increase the usefulness of the medical practitioner to the public, to elevate his character, and protect his interests. The question involves, however, more than one point for consideration,

and while the principles upon which the necessary measures should be founded may not unfitly be laid down, the ends of the Association are more likely to be obtained by being, as far as may admit of it, separately sought. The Association will do well to follow up with diligence and renewed energy the proceedings which they have so well commenced in regard to the poor-law. The documentary evidence which has been collected through the indefatigable exertions of their committee is full and conclusive, and cannot fail to exercise much influence in ultimately bringing this important question to a satisfactory settlement.

The strongest grounds are thereby afforded for reiterating the calls for redress, and the recorded statements may at once be referred to whenever information is asked for. The facts are incontrovertible, and of the most decisive character, and cannot readily be explained away, since many of them are furnished, willingly or otherwise, by the very authorities by whom the evils complained of have been perpetrated and upheld. The sifting of the evidence furnished by the assistant commissioners forms a valuable part of the reports of the committee of the Association, and the statements of these gentlemen will be often found to constitute the best and most effective commentary on the complaints of the union officers and the practitioners of the union districts. Let this subject then be pressed; the evil is manifest and not denied; the complaints are urgent; the evidence by which these are supported, collected, and placed in an accessible shape; the means of redress pointed out; even the clauses necessary for an enactment on the subject have been drawn up by a sound and skilful lawyer, and adopted, as likely to secure the attainment of the very moderate and reasonable wishes of the profession by all who take a prominent part in the question. Nothing remains therefore but to press the subject, to force it on the attention of those who are in authority, not once or twice, but again and again, until the success which perseverance in a just cause ever merits, shall be at length obtained.

It is satisfactory to witness the manner in which these public questions have been treated at the various meetings of the branch associations. But one feeling seems to have prevailed respecting them, and that feeling has been decidedly and unequivocally expressed in approval of the firm yet temperate proceedings adopted by the general association. "Your council," says the report of the Newton Branch, "have had great pleasure in observing the rapid progress which the question of medical reform has made during the past year." "Still it is manifest that the present state of this question is such as to demand the most careful

and judicious management; and the future steps to be taken in pursuit of the highly desirable end we have in view, will require mature deliberation, and a comprehensive survey of the opinions and sentiments of all parties concerned."

"The error which has hitherto pervaded much that has been done relative to medical reform, has been a too great haste in the devising of the specific plans upon which such reforms should be conducted. But the calm and temperate manner in which the Provincial Medical and Surgical Association has entered upon this great work, has done much to counteract this evil." Nearly to the same effect has been the opinion expressed at similar meetings held elsewhere.

The necessity for caution in the proceedings of the Association, and for due consideration of every subject however apparently trivial, can perhaps scarcely be better illustrated than by an allusion to what occurred at Southampton, in relation to a question in which the private affairs of the Association were alone concerned. A proposition was made by Dr. Cowan, after a forcible and eloquent appeal to the best feelings of the meeting, for requiring from each member of the Association an additional subscription of five shillings annually towards the support of the benevolent fund. Happily the motion involved the alteration of a fundamental law of the Association, and required a formal notice before it could be received, or it might otherwise perhaps have passed without due reflection as to the consequences. The disapprobation since expressed of the compulsory principle of the measure contemplated has been very general, and when it comes to be viewed more closely, we doubt not that even Dr. Cowan himself will feel the weight of the objections which militate against his proposal. We are not among those who would say that benevolent feelings should be constantly and systematically held in check by the cold and calculating dictates of a so-called prudence. But then we cannot but perceive that compulsory measures to force others to be charitable after our own fashion, are calculated to strike at the very root of all benevolence, which, unless it spring free and unconstrainedly from the heart, must lose at least one moiety of its value. Charity, like mercy,

— is not strain'd;

It droppeth, as the gentle rain from heaven,

Upon the place beneath: it is twice bless'd;

It blesseth him that gives, and him that takes.

This proposition, from the disapprobation so generally manifested, will unquestionably be negatived at York; and even were it possible that the measure should be carried, there is reason to fear it would be as much productive of injury to many

institutions of similar character as of benefit to the benevolent fund of the Association. We trust, however, that some method will be found of augmenting the resources of that department of the Association, as great benefit has already resulted from the judicious employment of the very limited means placed at the disposal of the committee.

But, however this question may be disposed of, it should be remembered, in the discussion of whatever subjects come before the meeting, that the interests of a great and flourishing institution are under consideration—that this institution is powerful only according as its concerns are conducted with prudence, and with equitable consideration for the opinions of all who are enrolled among its members—and that the weight of its influence should not be lightly bestowed in support of any measure, or exerted for the attainment of any object, upon which there is no possibility of ascertaining the views of those who are unavoidably absent. The Association is, indeed, protected against such an occurrence, as far as practicable, by an express regulation requiring three months' notice of any motion, the object of which may be such as to interfere with any existing law. It is worthy of observation, that the very first occasion, as we believe, on which this regulation required to be complied with, should so fully evince the importance and value of the provision. There is another point upon which the Association may derive an instructive lesson from the transaction alluded to, and one which, at the present time, is especially called for,—we mean the importance of giving every encouragement to the formation of branches. It is scarcely possible for the opinions of many of those members who happen to be residing at a considerable distance from the place appointed for the anniversary meeting, to be duly ascertained without some such provision as is afforded by the local meetings of the branch associations.

Where, however, meetings of this description are held, the general views of the members residing in their respective localities are ascertained, and the expression of them, by this means rendered easy, must deservedly possess great weight not only with the council, but with the general meetings. It is quite possible that a measure might be introduced at a general meeting, such, for instance, as the one connected with the benevolent fund, which will not by any means prove acceptable to the majority of the members of the Association, though the influence or the eloquence of one or more individuals present, where there is no impediment to interfere, as in the case referred to, with its immediate adoption, might be sufficient to carry it through the meeting. The holding of branch meetings tends to place a check on the introduc-

tion of such measures without sufficient notice, and at the same time to discourage their adoption without sufficient time having been afforded for reflection when they are introduced. The passing of any measure likely to affect materially the interests of the Association, will not be hastily acceded to by a general meeting, if, by postponing it for a time, it is likely that the Association will derive the advantage of ascertaining the views of the members at large. By the arrangements now adopted, this is readily accomplished in regard to all matters brought forward by the council. The proposed report is always circulated amongst all the members of the council, and consequently in every place where the association possesses influence, and the branches have thus the opportunity afforded them of expressing their opinion on the questions intended to be brought forward at the general meeting. If this provision be called for and acted upon with respect to measures, the bearing of which has been well considered by those who are most intimately acquainted with the affairs of the association, it becomes far more necessary in respect to such as may be brought forward without having previously received the advantage of such consideration. The giving efficiency and support to those branch associations which already exist, and encouragement to the formation of new ones, wherever a sufficient number of members reside, should, therefore, as it appears to us, occupy the attention of the council. In many other respects,—for instance, in affording occasions to bring the members of the profession into friendly intercourse with each other, in facilitating the collecting and communication of valuable local information, in conducing to the rubbing off the rust of seclusion so apt to be acquired by those who are thrown entirely upon their own resources, these more local institutions can scarcely be too highly appreciated.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, July 6, 1841.

Dr. WILLIAMS, President.

ON ABSORPTION AND REGENERATION OF THE NECK OF THE THIGH-BONE AFTER FRACTURE WITHIN THE CAPSULAR LIGAMENT. BY W. W. BEEVER, ESQ., OF MANCHESTER. COMMUNICATED BY MR. PARTRIDGE.

THE patient, a woman, aged 73, lived nearly four years after the accident. On examination no vestige of the neck remained, except a triangular portion of the under surface, three-fourths of an inch in length, which, from the obliquity of the fracture, had not been detached from the head. This was articulated by a distinct capsule to a second fragment jutting out from the shaft, and

firmly united to it, immediately anterior to the lesser trochanter. This adventitious joint, and a band of ligamentous structure extending from the posterior edge of the head to the capsular ligament, formed the only connexion between the head and body of the femur. From the large quantity of callus thrown out by the trochanter and head of the bone, the author infers the possibility of bony union being effected.

CASE OF ANEURISM OF THE RIGHT SUBCLAVIAN ARTERY, IN WHICH THAT VESSEL WAS TIED INTERNAL TO THE SCALENUS MUSCLE. BY RICHARD PARTRIDGE, F.R.S., PROFESSOR OF ANATOMY IN KING'S COLLEGE, AND SURGEON TO KING'S COLLEGE HOSPITAL.

The patient, David Hickman, was a married man, 38 years of age, muscular, of a sallow complexion, and had lived rather an intemperate life. His occupation was that of a grinder and polisher of heavy iron plates; an employment requiring great muscular exertion of the arms. He had been the subject of several slight rheumatic attacks, and once, about a year before his admission into King's College Hospital, he had what he called a fever, which laid him up for six weeks, and was attended with cough and pains about the upper part of the chest. After this illness he was always subject to pains below the clavicle, which were brought on by any unusual muscular exertion. In August, 1840, about five months before admission into the hospital, he began to experience pains along the right side of the neck and over the corresponding shoulder, with numbness of the arm, and an increasing want of muscular power in the whole limb.

About a month after the appearance of these symptoms, a pulsating tumor showed itself above the right clavicle; and as this enlarged, the numbness of the arm and the pains in the neck and shoulder became worse, so that, finally, the man was obliged to abandon his employment.

Feb. 1, 1841.—Hickman was admitted into King's College Hospital. He had then an aneurism of the right subclavian artery, extending from the outer border of the anterior scalenus, which it appeared to overlap, downwards, behind the clavicle into the axilla as far as the lesser pectoral muscle. The tumor was slightly compressible, and appeared to contain fluid blood. Upon a careful examination, the right common carotid and subclavian internal to the scalenus seemed healthy; the arteria innominata was thought to be enlarged, as well as the arch of the aorta; it could not be ascertained that they were otherwise diseased. No disease could be detected in the heart or lungs, though there was pain on percussion beneath the right clavicle. The pulse at both wrists was about 80, full, soft, and regular.

The right upper extremity was somewhat wasted comparatively with the opposite limb. The patient's rest was at night very much disturbed by the pains and numbness of the arm.

The patient was placed in bed at perfect rest, with low diet and occasional aperients.

The pains in the limb were relieved by wrapping it in flannel; and this, with an occasional opiate at night, procured him comfortable sleep.

The patient was bled from the left arm after his admission four times, at intervals of three or four

days. After these venesections the pulse always became lower, and they appeared to have the effect of diminishing the pains in the arm and shoulder.

Feb. 20. Mr. Partridge put a ligature on the subclavian artery internal to the scalenus.

An incision was made between three and four inches in length along the clavicle to the centre of the upper border of the sternum, dividing the skin and platysma; the sternal origin and part of the clavicular fibres of the sterno-mastoideus were next exposed and divided, and then a small anterior jugular vein which crossed the incision; afterwards the sterno-hyoid and sterno-thyroid muscles were cut across, and after some careful dissection the artery was exposed, lying very deeply at the bottom of the wound. The vessel was large, but otherwise healthy; the internal jugular vein and nervus vagus were drawn to the outer side of the wound, and a strong thread ligature was passed around the artery by means of a common aneurism needle; care being taken to avoid wounding the pleura, which lay immediately underneath the vessel. Upon securing the ligature, pulsation in the tumor and at the wrist ceased.

Soon after, being placed in bed, the man felt sick, and vomited.

In the evening, about four ounces of blood were lost from the small anterior jugular vein, which had been divided during the operation: it was secured with a ligature. At night the patient complained of pain at the pit of the stomach; this was relieved by an opiate draught, and he dozed quietly until the morning, when the pain at the stomach returned severely, accompanied by thirst: it yielded to venesection, but after a few hours recurred, and was not, as before, relieved by bleeding. The thirst also returned, and pain was felt along the right side of the sternum, and the pulse and respiration were quickened. A very faint pulsation was felt at the right wrist, and continued until the patient's death. The symptoms increasing day by day, the patient soon became exhausted; his face was pale, and covered with a clammy sweat; his look became anxious; the pulse small, and very rapid; and the respiration quicker. The thirst was excessive; but all attempts to relieve it by fluids, produced intense pain at the scrobiculus cordis. Temporary relief was afforded by leeches and mustard-poultices, applied to the chest and pit of the stomach, but the pains soon returned. On the 24th of February (at 11 A.M.) the fourth day after the operation, the man died.

On the 26th, the body was examined as carefully as could be done at the patient's house, where it had been removed by the friends. The aneurism was found to extend from the outer edge of the scalenus to the lesser pectoral muscle; internally, the sac turned over the outer border of the scalenus, and overlapped it. It contained coagulated blood, but no fibrinous deposits, and its coats in some places were exceedingly attenuated. It would have been impossible to have placed a ligature on the artery, either on the outer side or behind the scalenus. The ligature was found on the artery, mid-way between its origin and the inner border of the scalenus anticus. The nervus vagus, the recurrent nerve, and the pleura, were uninjured.

In the chest, on both sides, were found old adhesions, between the pleura costalis and pulmona-

lis, with serum in the cavities of these membranes, but especially on the right side of the chest, where the pulmonary portion of the pleura was slightly coated with recent lymph. There were tubercles, in a quiet state however, scattered through the upper lobes of both lungs. A small quantity of serum was found in the pericardium, and its inner surface was coated with a thin layer of recent lymph. The heart, arch of the aorta, arteria innominata, and both common carotids, though rather larger than natural, were healthy. Three small deposits of pus were found in the cellular tissue near the wound, and along the anterior mediastinum: they were unconnected with each other. The wound itself looked healthy. No clot existed, either in the subclavian artery or in the vessels springing from it. None of the veins were inflamed. The stomach appeared quite healthy.

The author, after detailing the case, states his reasons for putting a ligature on the subclavian artery, internal to the scalenus, in preference to any other operation. He next proceeds to take a review of the symptoms, and the probable cause of death, and compares them with those which were observed in other cases in which this operation had been performed.

CASE OF FATAL ENCEPHALITIS, WITH HEMIPLEGIA, IMMEDIATELY EXCITED BY CANTHARIDES, IN CONSEQUENCE OF INTENSE PREDISPOSITION FROM BASILAR AND INTERNAL CAROTID ANEURISMS. BY P. W. KINGSTON, M.D., PHYSICIAN TO THE ST. JAMES'S AND ST. GEORGE'S DISPENSARY.

James Hullah, between fifteen and sixteen years of age, shoemaker, admitted Dr. Kingston's patient at the dispensary, Oct. 17, 1836.

He has for three years and a half had a throbbing tumor at the right side of the neck, which has gradually reached the size of two-thirds of an orange, but has otherwise been considered strong, and free from ailment, till this morning, when he was suddenly seized with vomiting and with numbness, and almost total loss of power of the trunk, the right arm and leg, the right side of the mouth, and the tongue. Pulse 80; bowels confined for four days. He died in thirty-eight hours and a half: during this period the urine was almost entirely suppressed; the vomiting continued frequent; there was occasional suspension of respiration, followed by spasm of the larynx; he lost, after a time, the power of deglutition, and became by degrees completely comatose.

It was ascertained that the night before the seizure he had taken some Spanish fly in an apple. The body was examined sixteen hours after death. Patches of the mucous membrane of the stomach presented a degree of redness, softness, and elevation, which contrasted strongly with the appearance of the adjacent parts. The spleen was softened. The kidneys were much congested, and their cortical portions softened: the pelvis of the right was filled with nearly an opaque, white, flaky fluid, of creamy consistence. The mucous membrane of nearly half the bladder was deeply reddened and much softened. There was a large aneurismal dilatation of the right internal carotid artery; and one of the basilar artery, of the size of a moderate walnut, which appears to have formed gradually, and without rupture of its tunics. The pons Varolii had become flattened by the pressure

of the basilar aneurism, and was much softened for the depth of a quarter of an inch. The right lateral ventricle contained an ounce of limpid serum, the left none.

In his evidence given at the coroner's inquest in this case, the author commented upon the fact, that the fatal termination immediately occasioned by cantharides would not have resulted from so small a dose, but for the predisposing causes here noticed. And he points out the application of which this kind of reasoning is capable, in many trials for murder.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

SHROPSHIRE AND NORTH WALES BRANCH.

THE Annual Meeting of this Society took place, on Thursday forenoon, at the Lion Hotel. The President, Dr. Parker, of Overton, was in the chair. The other members of the Society present were—Rice Wynne, Esq., Dr. Jeffreys, (Liverpool,) Dr. H. Johnson, Mr. E. Gwynne, (Wem,) Messrs. Webb, (Ketley Bank,) Mr. Watson, (Ellesmere,) Mr. Wilding, (Church Stretton,) Mr. Hickman, (Brockton,) Dr. Marsh, Mr. R. Cartwright, Mr. J. N. Heathcote, Mr. J. Y. Arrow-smith, Mr. Darkin, and Dr. Ward.

On taking the chair, Dr. Parker expressed his regret that the attendance of members was not more numerous, and attributed it to the non-adherence to the original day fixed for the meeting.

Dr. Jeffreys regretted the small attendance on the present occasion. But he considered that, in all probability, circumstances which might not occur again had share in causing this.—(Hear.) The Elections had materially interfered in this manner with their recent Lancashire meeting.

Mr. Lee, of Ellesmere, Mr. Thomas Gwynne, and Mr. Richard Wilding, were admitted members.

PRESIDENT'S ADDRESS.

The president then said that it only remained for him to make a few remarks,—and before he did so, he was bound to allude to the difference between the reception the members had from him and from last year's president, Mr. Rice Wynne. The splendid hospitality which that gentleman had exercised on that occasion, was such as to preclude any attempt at imitation. Nor, indeed, could it be a rule to guide his successors. The president then read his address, which contained a brief and clear history of the state of the medical profession under the control of the corporations, as originally chartered by Henry VIII. down to the present time; alluding to the anomalies of their primary institution, which had continued, under all the changes of society, to the present day. He noticed some views projected for the removal of these anomalies, by such modifications in the institutions as the wants of the profession and the case required. He stated his views upon professional education, as alike important to the public and practitioners. He then alluded to, and lamented, the prevalence of quackery, which he described as an evil springing from and fostered by popular ignorance, and, like superstition, to be best corrected by more extensive knowledge

and enlightened views. Dr. Parker then spoke of the evils arising to the public from the want of a responsible Board of Health, and a Medical Police to superintend and inquire into all causes which may influence health—such as sewerage, ventilation, &c. He noticed that the inequalities of health between the richer and poorer sections of a people might be somewhat reduced by a judicious legislation, and he commented, with much force and at some length, upon the evils arising to the public from the New Poor-law regulations as to medico-parochial duties,—he said that in the case of vaccination this was especially obvious, as that would be much retarded by such injudicious interference. He considered that all the evils were remediable by an improvement in the machinery of the existing bodies, without their entire subversion,—the force of public opinion would be of more avail than legal enactments. Dr. Parker said that he had now to resign his office into the hands of his successor. Accordingly,

Mr. E. Gwynne, President for 1841-2, then took the chair. He said that he was fully aware of his deficiencies, but he entered into the discharge of the duties which now devolved on him with a desire to execute them faithfully. He avowed himself a Medical Reformer, but had never yet learned by what means medical reform was to have been effected, so as to conduce to the dignity of the profession and the advantage of the public. He thought that legal enactments might place the profession in a worse position than they now occupied. The reform committee, before any measure was proposed to parliament, should lay its details before the profession at large, and have them fully discussed. A measure relative to druggists had lately been introduced, but this was only "throwing a tub to the whale."—(Hear.) He did not see how druggists dispensing medicines could interfere with or injure the profession. If a person wanted a black draught, he could get it as good at the druggist's as if he had occupied ten minutes of a medical man's time in stating his case. Empiricism could best be put down by education,—the way to make people do a thing was to say they should not do it.—(Hear.) He trusted that there would be a better meeting next year.

Dr. Ward then read the following

REPORT OF THE COUNCIL.

The council of the Shropshire and North Wales Branch of the Provincial Medical and Surgical Association, at the fourth re-union of its members, have the satisfaction of declaring to them that the society continues to flourish; and that as far as opportunities have been afforded to them, they have endeavoured to carry out the objects of the institution.

On the present occasion, however, in consequence of the importance of the subjects embraced in the report that is about to be laid before the ensuing general meeting at York, it has been deemed advisable to notice local topics only as far as they are connected with the matters alluded to, in order that the merits of these may be thoroughly canvassed and understood before their final adoption.

The council, therefore, have much pleasure in announcing that a want which has been long felt, of some more speedy mode of communication be-

tween the members than would be afforded by the transactions of the society, is about to be supplied by the establishment of a weekly periodical, which will be forwarded to each member whose subscription is not in arrear, free of any expense. This journal will be devoted to the reception of such papers on medical science, and on the subjects that now agitate the profession, as either from their nature, or from the propriety of their immediate communication to the profession at large, would be best adapted for such a mode of publication. On the advantages of a well-conducted periodical of this kind, it is needless to dilate, for no one can doubt that the establishment of truth must be the ultimate effect of free discussion, and a rapid interchange of ideas, between men of education, united together for the purpose of promoting the usefulness and dignity of their profession.

In March last, at the suggestion of the general secretary, Dr. Hastings, a petition to the House of Commons upon the subject of parochial medical relief was prepared by your secretaries, and, having been signed by most of the profession resident in the town, was forwarded to the members of parliament for the borough for presentation, on the introduction of the clause relating to this subject in the new poor-law continuance bill. This bill, however, having been abandoned for the present, it will remain the duty of your council to watch its progress at its reintroduction in the ensuing parliament, and to exert themselves to protect the interests of the medical profession, in conjunction with the efforts of the general association for the same purpose.

Notwithstanding that the sudden dissolution of parliament has put a stop to all hope of any legislative enactment for the present upon that important subject, medical reform, yet the committee appointed to carry out this object have not relaxed in their exertions, but will be prepared with a report of their labours at the York meeting, upon which occasion reports will also be presented upon empiricism, parochial medical relief, and medical topography.

Your late respected president, Mr. Wynn, on his resignation of the office, set a noble example in acknowledgment of the claims of the less fortunate members of the profession to the assistance of their more wealthy brethren, by the munificent donation of 20*l.* to the benevolent fund of the society; and the council beg to call the attention of the members to the circumstance, that in furtherance of the same laudable object, Dr. Cowan, of Reading, intends to propose a resolution at York, making it compulsory upon every member to subscribe 5*s.* annually to the benevolent fund, in addition to the guinea for general purposes.

But while the council fully concur with, and applaud the generous sentiments that have actuated Dr. Cowan, and would gladly give every encouragement to such charitable intentions, they feel they cannot support a project foreign to the original purpose of the society, which might be considered as oppressive even by the most benevolent of our members, and which, by depriving our charity of its free will, would divest it of all its charms.

It was agreed, on the motion of Mr. R. Cartwright, seconded by Mr. J. N. Heathcote, that this report be approved of and adopted.

Dr. Jeffreys stated that Dr. Cowan's motion for

the compulsory contribution of 5*s.* from each member, had been proposed at Southampton last year, and there had met with great opposition. It was to be brought forward at the approaching meeting at York,—at the recent meeting at Newton (Lancashire) it had been disapproved of.

APPOINTMENT OF OFFICERS.

On the motion of Dr. Parker, seconded by Mr. R. Wynn, it was agreed that, in future, the vice-president should succeed to the presidency, as a matter of course.

It was agreed, on the motion of Dr. H. Johnson, seconded by Mr. R. Cartwright, that Mr. W. J. Clement be president-elect for 1842, and (on the motion of Dr. Ward, seconded by Mr. Cartwright) that Mr. Webb, sen., should be vice-president elect for the same year.

Thanks were then voted to the president, the council, and the secretaries respectively. Dr. Parker, Mr. Dickin, and Dr. Ward briefly acknowledged these votes.

On the retirement of Mr. Dickin from the secretaryship, Mr. Arrowsmith was appointed his successor, and undertook the office, saying that Dr. Ward had kindly consented to execute its most active duties.

PAPERS READ.

Dr. H. Johnson then read a paper on a peculiar affection of the gums of persons suffering from lead colic.

Mr. Webb noticed the effect of lead in changing the colour of the teeth when used as a gargle in salivation. He also noticed the detection of lead in the urine in a fatal case of poisoning from acetate of lead.

Dr. Jeffreys then read a paper on the use of branch associations, pointing out how valuable a means they offer of collecting statistical information, as well as their advantage in promoting a closer union among the different grades of the medical profession.

Mr. Dickin read the report of a case in which he operated to remove the deformity resulting from a burn affecting the face, neck, and breast, and by which operation one of the most frightful deformities was removed. Mr. Dickin showed the society two portraits of the patient, one taken before and the other after the cure.

This concluded the business of the day, and the meeting broke up about half-past three o'clock.

THE DINNER.

At half-past four, about twenty members of the association, together with Dr. Jeffreys of Liverpool, and a few other visitors, sat down to an excellent dinner at the Lion Hotel.

The chair was occupied by Mr. Gwynne, president for the present year, who was ably supported by Dr. Marsh, as vice-chairman. The evening passed off in the most pleasant and harmonious manner. A variety of loyal, national, professional, and local toasts were given, which were received with enthusiasm. Among them were The Queen; Prince Albert and the Princess Royal; the Queen Dowager and the rest of the Royal Family; Lord Hill and the Army; the Wooden Walls of Old England; Dr. Darwin (Dr. Parker returned thanks); Dr. Jeffreys and the

Provincial Medical and Surgical Association (Dr. J. returned thanks); Mr. Gwynne and the Shropshire and North Wales Branch of the Association (Mr. G. returned thanks); the Lord Lieutenant and Magistracy of the County (Mr. Wycherley Smith, one of the magistrates, returned thanks); Dr. Parker; the Mayor and Corporation of Shrewsbury (Mr. Wynne returned thanks); Mr. Marsh; the President elect; Rice Wynne, Esq.; the Council; the Secretaries; Mr. Peplow Cartwright of Oswestry; the Parliamentary Representatives of Shropshire and her Boroughs; the Press (the Editor of the *Salopian Journal* acknowledged this toast); Dr. Hastings of Worcester; Sir Benjamin Brodie; the Memory of Sir Astley Cooper; the Borough Members; the Rev. Dr. Kennedy and the Free Schools; Sir Rowland Hill, &c. &c.—*Salopian Journal*.

SOUTHERN DISTRICT BRANCH.

THE annual meeting of the Southern District Branch of this Association was held at Chichester on Wednesday, the 16th ult. These reunions of the medical profession, calculated as they decidedly are to enlighten and liberalise its numerous members by the diffusion of information, and by bringing into friendly collision those who are necessarily separated at all other times, are interesting to every one who knows and feels the intimacy of that bond which connects the welfare of that profession with that of the public. It is to these annual intellectual feasts that the provincial practitioner looks to keep him up to the level of that advance which is constantly and rapidly adding to the store of medical literature and discovery. Immersed as he is in the details of daily practice, many an interesting and valuable addition to his means of combating disease would entirely slip by him, and be, at any rate, for a long time lost to him, if it were not for the opportunities which these associations offer.

At half-past 11, Dr. Quarrier of Portsmouth, the president of the past year, took the chair in the Assembly Rooms, and, after a few observations, resigned his seat to Dr. McCarogher of Chichester, the president of the ensuing year.

The report of the secretary, Mr. Wickham, of Winchester, having been read,

The President then delivered a very excellent address, which occupied about half an hour in delivery. His observations on the character of Dr. Forbes, and on the value of his literary labours in the cause of medicine, were both justly due and eloquently expressed.*

The thanks of the meeting to the president were proposed by Mr. A. Duke of Chichester, and seconded by Mr. Blatherwicke of Fareham.

It was proposed by Mr. Newnham of Farnham, and seconded by Dr. Quarrier, that the place of meeting for the year 1842 shall be Poole.

It was proposed by Mr. Dodd of Chichester, seconded by Mr. Allen Duke of Chichester, that Mr. Tatham of Salisbury be requested to prepare a retrospective address on medicine and surgery for the meeting of next year.

It was proposed by Mr. Engledue of Southsea,

seconded by Mr. Case of Fareham, that Dr. Windsor of Salisbury be requested to accept the office of secretary to the branch association, in conjunction with Mr. Wickham of Winchester, and in place of Dr. Buller of Southampton, who had resigned.

Dr. Engledue of Southsea then read a very elaborate and valuable report on the most prominent subjects of medical interest during the last year. It is obviously impossible for us to give a digest of the mass of information contained in this production of the Doctor's talent and industry.

The thanks of the meeting to Dr. Engledue, for his learned address, were proposed by Mr. Elliott of Chichester, and seconded by Mr. Dennett of Storrington.

Mr. Newham of Farnham, in a feeling and appropriate speech, advocated the cause of the benevolent fund for the Provincial Association, for the relief of the widows and orphans of distressed medical men. It is much to be regretted that so important and useful a portion of the Association should be allowed to languish as it has done for the want of funds, and it would be well for the profession to follow the example of the amiable and talented proposer of this subject, who, in the towns and neighbourhood of Farnham, raised between 30*l.* and 40*l.* in subscriptions for this charitable object, during the past year.

His observations and recommendations were seconded by Mr. Dodd of Chichester.

Mr. Dennett of Dorrington then brought before the notice of the meeting the value of the oxide of silver in menorrhagia and several other diseases, and showed its great superiority over the nitrate, as more mild and yet equally efficacious. He also produced before the meeting a patient in whom a considerable portion of the os humeri had come away after a fracture. The space thus deprived of bone was filled up with a new but shorter portion, and the patient had a very useful arm left.

Mr. Dodd then read a paper on the signs of pregnancy, and the means which we at present possess of detecting that state in doubtful cases. He strongly recommended the use of the stethoscope as a more certain means of diagnosis than any hitherto discovered.*

It was proposed by Mr. Wickham, seconded by Dr. Quarrier, that the meeting strongly recommend to the reform section of the parent association to persevere in the cause of medical reform on the following principles:—

1. A uniform system of qualification for every licensed practitioner.
2. A registration of every licensed practitioner.
3. The incorporation of existing colleges for the formation of a legislative and examining body.

The meeting broke up at half-past four.

At six o'clock the members sat down to dinner at the Dolphin, and the evening passed in a very animated and agreeable manner.—*Brighton Herald*.

* We shall publish Mr. Dodd's paper in an early number.

* We shall publish this address in a future number.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

(Continued from p. 338.)

REPORT OF THE POOR-LAW COMMITTEE, 1840.

(Published by order of the Council.)

§ 40. The interference of boards of guardians in the establishment of medical clubs, was objected to by some assistant commissioners, particularly by Dr. Kay, who "always advised that the contrary course should be pursued." (5102.) He strongly objected to making the appointment to a medical club, a condition with the medical practitioners before becoming an officer of the union. (5103.) So jealous of interference with these institutions did he appear, that he would not even institute minute inquiries with regard to their progress, and "only in cases in which information had been volunteered" to him, was he able to furnish it to the committee. "I believe," said Dr. Kay, "I have no more right to inquire into such arrangements generally, than into the private business of a medical officer." (5104.) Some of his colleagues must have felt the force of this indirect reproof; Mr. Power, for example, who requested information on this point from every union in his district.*

Instances have likewise come to our knowledge, in which the relieving officers were instructed to obtain returns of the number of members and the amount of subscriptions, which might afford data for the reduction of the next year's pauper contracts.† It appears, indeed, from a letter of a medical officer,‡ published in the appendix, that even in Dr. Kay's district, the guardians had interfered in the superintendence and control of medical clubs; and Dr. Kay himself had interposed his authority in two instances to prevent this. (5103-8.)

Mr. Power defended the interference of the guardians, on the ground that the club embraced a class which would otherwise have fallen upon the parish for medical relief; in other words, "those whom, under the usual contract, the medical man would be held liable to attend in case of sickness. Beyond this class, it did not appear to be the proper province of the guardians to interfere, § &c." He therefore thought that by establishing a club, he was "opening a means for the independent labourers to retire from pauperism, as regards medical relief." (4302.) Mr. Power did not consider that it was impossible to "retire from pauperism," whilst under the management and protection of the guardians.

The neglect of this principle induced him to recommend the union of a pauper schedule with an independent schedule in the same club, to be attended by the same medical officer, at the same rate of subscription, and to be managed by the same parties.||

We have received satisfactory information that this form of medical club is now almost abandoned. The poor members perceiving no particular advantage in paying to be entered on one of the schedules, have for the most part practically

acknowledged their dependent condition, by seeking admission into the *other* schedule, or have trusted to the humanity of the guardians for a supply of medical relief in the event of sickness. In a few instances the "independent" schedule has been detached from the parish contract, and, deprived of the guardians' parental support, drags on a lingering existence as a labourer's club. The central board did not adopt Mr. Power's peculiar scheme, but strenuously urged the guardians to establish "independent" clubs. In February, 1836, they issued a circular, in which they "expressed their earnest hope, that, collectively and individually, the guardians would give all the aid in their power to the establishment of self-supporting medical clubs."

Mr. Gulson, whose conformity of opinion with his superiors was as remarkable as the difference of his practice from that of his colleagues, stated, (1742) "I decidedly endeavour to get the boards of guardians to establish 'medical' clubs."

Dr. Kay only spoke of his own district, when he said, (5107) that the boards of guardians had not "prescribed any set of rules, or the terms to be adopted in any club;" both the commissioners, in the circular just referred to, and Mr. Power, in his instructional letter, *did* prescribe terms. The former proposed, as the minimum contribution, 3s. per annum for a single person; 4s. for a man and his wife; 1s. 6d. for the first child, and 9d. each for the other children; the aged and infirm parents, and also the idiots and cripples of every age, were to be paid for as children. Mr. Power, likewise, recommended the same scale, with this difference, that each child was only to incur a payment of 6d. per annum, and every person in the same family, above the age of sixteen, 2s. per annum. The average contribution per head in large families would thus vary from 1s. 2d. to 1s. 6d. The infirm and the helpless were insured at a lower premium than the able-bodied and healthy; the greater the liability to sickness, the smaller was the contribution. A man with a large and sickly family subscribed per head less than half, or one third, of the sum paid by the healthy labourer, who was thus made to contribute indirectly to his neighbour's relief.

Now what is this, in principle, but a continuance of the much deprecated allowance system, and what, in practice, but a transfer of the burden of large families, and of the sick and infirm, from the poor-rates to the medical profession? Dr. Kay, doubtless, saw the drift of the plan, when he gave the following opinion to the commissioners:—"I cannot deem it desirable that, by too low a rate of payment, one kind of assistance should be substituted for another; and that the dependence of the poor should be thus disguised."

But hitherto we have given the most favourable specimens of remuneration in medical clubs. In many, all the children, above a certain number, were to be admitted without any payment; in others, only one penny per week was required for a man, his wife, and his whole family, under sixteen years of age!!† The result of such a system,

* Second Annual Report, p. 24. et seq.

† Medical Relief for the labouring classes. Parker, London, 1837.

‡ Mr. Copeman.

§ Report, 1836.

|| The guardians even undertook to secure the admission of the poor when sick, into the "Independent Club," by advancing the dues for them as a loan!! (4268.)

• Appendix to Second Annual Report.

† Mr. Gulson states in a recent report from Oxfordshire: "Medical clubs are starting up in all directions. The proceedings of the board, as regards the medical department, have already been productive of the best results. Highly respectable (?) medical men are undertaking to attend all cases for an annual subscrip-

as it respects the medical treatment of the poor, must be fearful. The medical officer would be constantly contriving how to attend the club patients, at the least possible sacrifice of time, exertion, and expense. The subscribers to these clubs, (except, perhaps, under Mr. Power's system,) have not even the trifling advantage of the superintendence of the guardians, which the other paupers enjoy.

The principle of the clubs is that of "a contract between the poor and a medical person, without any one to protect them." (18065) The amount of duty performed, and the cost of medicines furnished, are never made known; the medical officer is the irresponsible receiver of the payments of the poor. The results of this plan therefore, with regard to the treatment of disease, and the rate of medical remuneration, are concealed. If the surgeon be humane and honest, he would probably consider it derogatory to his professional standing, to acknowledge the ridiculously small sum received for his visits and medicines; whilst if his character be of an opposite description, he would of course refuse to divulge the injustice and neglect which his patients had (in many instances) endured."

§ 41. The combination of a number of persons whose pecuniary interests are concerned in depressing medical remuneration, must operate injuriously on the profession.

Whether the guardians establish the clubs, or the working classes unite for the purpose of mutual insurance against the expense of medical attendance, it cannot be denied that medical practitioners are placed in a highly disadvantageous position.

By appointing only one surgeon to attend a club, competition of a most discreditable kind has been called into action, and, no less than under the tender system, the honour of the profession has been unscrupulously sacrificed to the interest of the individual. In the same locality might be seen several surgeons having their separate clubs, contending who should demand the lowest rate of subscription, and disgracefully canvassing for members. And thus institutions, professedly designed for the benefit of the poor, became instruments of degradation to the profession.*

These remarks are more or less applicable to the majority of self-supporting medical institutions, which, although originating in the well-meant endeavours of philanthropic individuals, seem to have suggested the establishment of poor-law clubs. Thus Mr. Gulson acquired his taste for compulsory medical clubs, from observing the success of them in Coventry (1920 et seq.) While Mr. Power's notions were derived from his brother's "opposition dispensary" at Atherstone. (4245 et seq.)

Whether any system of mutual assurance could be brought to bear successfully on the expenses of medical relief, is a question still undecided.

One of the medical witnesses brought forward a plan (18068 et seq.) which had been, and still is, in operation in the south of Buckinghamshire, though with very doubtful success.

From all this it appears certain, that if the labouring classes combine to determine the rate of tion of 2s. for a single person; and for 4s. 4d. they engaged to attend a whole family, however large, so that it does not include children above sixteen years of age." First Annual Report, p. 81.

* See an instance. Medical Relief for the labouring classes, p. 87.

medical remuneration, so must practitioners combine to defend their own interests; otherwise they will soon be in a worse predicament from the general adoption of this system, than even from union contracts. Thus, in Leeds, not long since, the society of "Odd Fellows," 13,000 strong, advertised for medical officers from London, because their former surgeons would not consent to attend them at 2s. 6d. per head per annum.

The establishment of a medical relief society should be the act of a *united* profession;—of the corps, not of individuals.

It is evident that Dr. Kay wished to separate the simple notion of "*mutual assurance*" from the defective system of medical clubs; the abstract principle from the perverted form which it assumed in these institutions; (1501) and here he was doubtless right. The grand difficulty has, however, been in the just application of the principle to all parties concerned. His calculations of the rate of medical remuneration in some of the more flourishing self-supporting dispensaries afford no encouragement for their extension. The average cost per case for medicine and medical appliances, surgeons' and dispensers' salaries, was in the Coventry Dispensary, (six years,) 4s. 5d.; in the Burton on Trent, (two years,) 4s. 5½d.; in the Derby, (six years,) 3s. 4½d. (5124 and Appendix.) We need scarcely remark, that these sums form no approach to a remuneration, even in dense populations; how then can they be recommended in rural districts, where area and distance have to be considered? The unsound condition of the clubs, from which Dr. Kay had received "unsolicited reports," deserves a passing notice. In Mr. Copeman's, of Cottishall, out of 229 subscribers, in less than nine months there were no fewer than 249 sick, that is, more than 145 per cent. of cases per annum. Yet did the deluded medical officer imagine that his statement "could not fail to prove the prosperous condition of the club!" A portion of Mr. C.'s report may also be quoted to show the fallacious kind of "independence" which the system professed to create among the poor. "A man in the receipt of regular weekly wages, subscribes to a medical club for himself and family; if his wife or his children are ill, he applies without delay to the surgeon, procures advice and medicines, and preserves his independence (?), but should he himself happen to be the sick person, how are his wife and family to be maintained during his illness? His earnings are stopped; he has, most probably, saved nothing; and although he has provided himself with medical assistance, he must, for the sake of his family, become a pauper, and apply to his parish for relief; and if for one form of relief, why not for another? This case has happened to me several times, and I have been obliged to certify the illness of members of our club, in order to procure them relief from the board."*

In the present condition of the labouring classes it is almost impossible for the majority to preserve their independence under adverse circumstances. "When their income is barely sufficient to maintain health, there is neither wisdom, humanity, nor justice, in calling upon them to subscribe to a fund for its repair. In supplying to the poor the motives for independence, you must also furnish them with the means, or you do nothing."

* Medical Enquiry, p. 19.

A report from a Mr. Armstrong,* on the same subject, detailing the expedients which he adopted for obtaining payment, in some form or other, from the lower orders, (even stooping to collect their paltry subscriptions himself,) could not be perused, by any right-minded person, without regret and disgust.

Under such circumstances, is it surprising that the poor should withdraw from the scheme as soon as possible,† and that the profession, as a body, should set their faces against it?

Both Mr. Power and Dr. Kay acknowledged the general reluctance of medical practitioners to connect themselves with medical clubs; (4215-5098) nor has subsequent experience reconciled the majority to a system opposed equally to discriminative charity, sound political economy, and professional respectability.

§ 42. Your committee have now accomplished the necessary but unwelcome task of exposing the sophistry and errors, conspicuous in the attempts of the poor-law commissioners, to defend their medical arrangements before the parliamentary committee. We next proceed to detail the principal suggestions, for an amended system, offered by the medical witnesses.

The first which we deem it important to notice, as materially affecting several other recommendations, is that the cost of medical relief should be strictly a parochial charge; or, in Dr. Kay's words, that "the medical salaries should not be apportioned as an *establishment* charge upon the union, but bear a proportion to the number of sick attended in each parish." (5095, 5160) This proposal was supported by the medical witnesses, who believed that it would tend to direct the attention of the rate-payers of every parish to the cases of their sick poor; and would also contribute to break up medical districts, by causing the average rate of medical remuneration for an entire union or district, to press unfairly when applied to particular parishes.

The parliamentary committee likewise sanctioned the recommendation in the following terms:—"Your committee are of opinion, that attendance on the sick should be made a parochial charge, each parish paying for its own cases; and that it should never be made a part of the establishment charge, nor distributed among the different parishes in proportion to their averages." (P. 24).

§ 43. The mode of determining the objects of medical relief, and the remuneration of the medical officers, are points, too closely connected in practice, to be separated while considering the proposed amendments.

The principle, assented to by all, was that the remuneration should be strictly proportioned to the duty actually performed and the expense incurred by the medical officer; both which could only be determined by a reference to "the number constantly sick, the distance or extent of the district" or parish, (1517²) and the density of population.

Such a principle of remuneration involved the necessity either of predetermining the class of poor, or the portion of the population which should receive medical relief; or else of exercising

a discretion on the case of each applicant. Indiscriminate relief for the whole labouring population would of course be incompatible with a salary based upon the above specific data.

§ 44. More liberal plans had, however, been submitted to the profession and the public, (previous to the parliamentary inquiry,) which your committee cannot in justice leave unnoticed.

It had been suggested, for example, that the salary should be calculated simply on the population and area of districts or parishes, with a free administration of medical aid to the labouring classes, unfettered by the machinery of relieving officers, "pauper lists," or "orders." This proposal clearly sets aside the question of medical pauperism, for it assumes that the receipt of medical relief (like that of education at the public charge) does not, and ought not to, constitute any person a pauper. High authorities may be cited for and against this proposal; but the point need hardly be here debated, as unquestionably the public mind in England is not yet prepared for a national provision of medical relief, or for its necessary consequence, an "establishment" of the profession, in connexion with the state.

Such a change would not necessarily be advantageous to the profession, nor is it clear that the same amount of remuneration would be derived as at present, from, or on account of, the poor.

A salary calculated on the population, if *paupers only are to be attended*, has been generally objected to, as bearing no constant proportion to the amount of medical duty. (5081)

§ 45. The public provision of medical attendance (exclusive of hospitals and other voluntary charities) being, however, still paid for out of the funds for the relief of *paupers*, and being administered by the *poor-law* authorities,—it has been suggested by others, that the salaries of parochial surgeons should be calculated as a per centage on the amount of poor-rates, varying according to the density of the population, or area of the parish. Thus all the details of cases, visits, and specific charges, would be avoided by a gross salary; which, however, would not be liable to all the objections urged against the old fixed salaries, but would bear a relation to the pauperism of the district. Thus any variation in the average number of paupers would, of course, affect the amount of poor-rates, and through them the medical per centage. Any general distress or want of employment among the poor, would increase the amount of pauper disease, but then these circumstances would, at the same time, increase the general expenditure for the relief of the poor, and in this way meet the necessity for additional medical remuneration. A serious epidemic would be provided for in the same manner. (15317 et seq.)

A state of prosperity, on the contrary, would diminish both poor-rates and medical remuneration.

This self-acting adaptation of salary to the temporary circumstances of each parish, appeared to the late poor-law committee of this association deserving of unqualified approbation; on which account, as well as because it was more than once recommended during the parliamentary inquiry, we think it important to notice it. The minimum rate proposed for rural districts and small country towns, was four per cent. But in a scattered population at a considerable distance from the

* Medical Inquiry, p. 21.

† The decrease of members was acknowledged by Mr. Armstrong. Ibid.

medical officer, seven per cent. was considered scarcely sufficient for the maximum. In large and densely-populated towns, a smaller ratio than four per cent. should probably be adopted. (15198-15204) Mr. Farr considered that the average throughout the country should be seven per cent.* (15818)

It must, however, be admitted that this mode of computing medical remuneration can only be applied with accuracy to that class of poor who receive relief in money or in kind. The other class, who receive relief in medicine only, might exist in different proportions, according to the practice adopted in different unions. The salary, therefore, might not in all places bear the same relation to the amount of duty performed; and Mr. Power's objection to a fixed salary,—viz. that the authorities might give an indefinite number of orders for medical attendance without increasing the medical remuneration, would, in a measure, apply to this per centage.

§ 46. We return to the plan suggested by Dr. Kay, and generally approved by the medical witnesses, viz. that the recipients of medical relief should be divided into two classes, the *permanent* and the *casual* paupers. The first class would consist of all the paupers in the actual receipt of out-door relief. These should, without the intervention of an order from any person whatsoever, obtain medical assistance upon application. To this permanent class it would be easy to add others, such as widows or labouring men with large families, supporting themselves. (5160)

Provision would thus be made for the aged, infirm, and helpless, as well as for those who are known to be unable to provide medical relief for their families; whilst the medical officer would be called in at the early stages of disease, and thus have the opportunity of curtailing both his own duties and the duration of his cases. It would therefore be necessary "to make out for a certain period, (for half a year or a year,) a list of persons who might be expected in each parish to be in the receipt of out-door relief, and the medical remuneration should be estimated at a certain sum per head upon that pauper population, so as to afford an adequate remuneration per case. (5095, 16054.)†

The parliamentary committee approved this proposition, yet felt that "one principal difficulty will consist in determining whose names should be inserted in the list. With those already in the receipt of out-door relief, there will be no difficulty; but with respect to those who, when in health, can support themselves, but who may be supposed to be unable to meet the losses and expenses of sickness, it would require a very cautious discrimination in completing the list, by which the extent of medical relief to be given and the amount of the remuneration are mainly to be determined. Your committee, however, think that the principle on which those additional names are recommended for insertion is perfectly just, and as they think that the board of guardians must decide on those, as on all individual cases, they

* The credit of the original suggestion is due to Mr. Bew Lupton, of Cheshire, near Manchester, as well as to another associate at Hinckley. Vide Med. Gazette, vol. xx. p. 606.

† Mr. Power also describes the advantage of such an arrangement: "the parties entered on the list would be under no necessity of applying to any one but the medical man, all the other systems of course involve an application to the authorities." (4351.)

have no reason to believe that their choice will be indiscreetly exercised; and they cannot avoid saying that, while they would advise a proper caution to be used, they are of opinion, with Mr. Gullson and other witnesses, that medical relief may, with great propriety, be given more extensively than any other kind of parochial assistance."* p. 25.

§ 47. The second class of patients, proposed by Dr. Kay, were those who may not have been entered on the pauper list; "cases of casualty and sickness occurring among able-bodied labourers and persons not in the receipt of out-door relief. These persons," said Dr. Kay, "should be made the subject of an arrangement at so much per case."†

Mr. Power likewise practically sanctioned a similar arrangement, when he recommended the guardians to pay a fine, if they placed a person on the schedule when sick. (4263-9)

Were an equitable sum per case fixed, the interests of the medical officer would be protected, but without some modification of the system of granting orders, the welfare of the sick poor might be endangered by this plan.

It was very properly remarked by Mr. Scrope, that the tendency to withhold orders, (which we have already noticed, as resulting from the consideration that each order incurred additional expense,)‡ might be increased, if that expense were "in all cases borne by the particular parish to which the casual pauper belongs, as it might then become the interest of the parish to make as few orders as possible." (5157, 5160)

§ 48. It may be doubted whether the relieving and parish officers should, under such an arrangement, have the sole discretionary power to order medical relief, merely upon *their* view "of the urgency and necessity of the case," because, however competent these persons may be to decide on the ne-

* Dr. Kay was of opinion that the class of persons who should be entered on the pauper list, "may now be pretty well determined," although, two years before the parliamentary inquiry, he reported "that the persons who are to receive relief by medicine, under the union contract, cannot be pre-determined, so as to be arranged into a class (4829), and can only be described by special acts of discretion."

The poor-law commissioners considered this remark of sufficient importance to be embodied in their Second Annual Report, and Mr. Power, during his examination, was pressed to explain the discrepancy between *their* rule of administering relief and *his* own, which was, "that the parties to whom the liability of the medical contractor for the future was to extend, should be marked out and defined by name at the commencement of the period of contract."

He pleaded that there was no inconsistency between his plan and the commissioners', since he spoke of the parties to be included in the contract at first,—the commissioners, of all the parties who may have to receive medical relief in future (4380.)

This gentleman's defence of both plans deserves to be commended for its ingenuity, though it will probably fail to satisfy any one who carefully considers them, and who remembers the assertion of the commissioners, that the recipients of medical relief can *only* be decided on by a special exercise of discretion, without any exception in favour of that class, which Mr. Power said should be "marked out and defined by name—so as to render such" special acts of "discretion" unnecessary.

† This mode of dealing with casualties, was first suggested by Dr. Tweedale of Lynn, (vide Lancet, vol. ii. 1886, p. 15,) who observes, "As it will be sometimes necessary to give orders for medical attendance to persons who are not receiving parish relief, such should be paid for as extra cases, at so much for each case."

‡ Mr. Coely remarked, (15476,) "I see an objection, as I always have done, to payment per case, in this respect, that it tends to restrain the guardians from giving orders for medical relief; and I would rather avoid that, by a sacrifice on my part, and having more liberal orders, than I would restrict it by the payment per case; yet it must, I suppose, be done, inasmuch as it is impossible exactly to compute the relation of pauperism to population, and there is no means of calculating remuneration by a different rule."

cessity of any other species of relief, they are clearly unable to judge of the necessity for medical attendance. (5169)

Perhaps the difficulty might be met, though not entirely removed, by Dr. Kay's suggestion, that the relieving officer, in such a case, should provide medical attendance at a smaller cost, until the next meeting of the guardians, "when the regular payment per case should ensue, if they confirmed the grant."*

A simpler, more efficacious, and equally safe means of affording medical relief to the casual poor, in the opinion of several of the medical witnesses, would be to abolish orders altogether, and permit all the sick poor to apply, in the first instance, to the medical officer,† who might provide relief conditionally until the next meeting of the guardians.

The board would then, in the exercise of its discretionary authority, decide on each case, granting medical relief absolutely to those who are unable to pay for it, refusing it to others, and affording it to an intermediate class by loan.

The prospect of this investigation by the superior tribunal would be more likely to deter improper applicants, than any difficulty in obtaining orders from the inferior and half-informed persons, who generally occupy the post of relieving officer or overseer.

The only objection made to this proposition is, that the poor have been so long accustomed to receive "orders," that their abolition might at first appear to throw a difficulty in the way of obtaining medical assistance, from an impression, not easily eradicated, that without some kind of order the services of the medical officer could not be secured.

This impression would probably be soon corrected; but, at all events, if the system of orders is to be continued, your committee are unanimous in thinking it most essential that a superior class of persons should be appointed to distribute them; that, in each parish, some intelligent and well-informed individual, besides the ordinary parish officers, should be empowered to grant medical relief.‡ In which case, it appears also important that the guardians and the medical officers should have the power of reconsidering the grant; in fact, that the order should be conditional until the next meeting of the board, and should merely secure to the patient immediate medical attendance; otherwise a class not intended for parochial aid might, through this additional source of relief, be provided for at the expense of the rate-payers, and possibly to the disadvantage of the profession.

§ 49. The importance of the loan arrangement, under this or any system, (save that of indiscriminate relief to the whole labouring population,) cannot be too highly estimated. By it, the various parties entrusted with the distribution of orders are relieved from the responsibility of ultimately deciding on the destitution of the applicant,

and his right to relief from the poor-rates. That responsibility would attach to the board of guardians, with whom the ultimate discretionary power must rest. (1686)

Experience has shown that when the persons appointed to administer medical relief have authority to charge the cost on the poor rates, and are, at the same time, made responsible to the guardians for their acts, their caution becomes excessive and even injurious.

The loan removes all these difficulties; it encourages the relieving and parish officers to act humanely, the guardians discreetly, and the medical officer promptly.

All these considerations apply of course to that class for whom the per case arrangement was proposed; the majority of those entitled to medical relief would be provided for by the *pauper list*. If this were prepared with a due regard to the circumstances of the poor, and the principle admitted by the parliamentary committee and poor-law commissioners, that medical relief may be distributed more liberally than any other kind of relief (1722—1790)—that it may in certain cases be given to the families of able-bodied labourers—(1685—5160) and perhaps even to these labourers themselves when ill (4383)—the necessity for resorting to conditional orders, or to loans, would be reduced within narrow limits.

§ 50. The two classes of patients, which we have thus described, would, according to Dr. Kay and the medical witnesses, be provided for at different rates of remuneration. "The cases of casualty being generally more severe than those included in the list," would incur a higher payment. (11634)

With whom then should the power of fixing the rate of remuneration rest? The poor-law commissioners and guardians claimed the right (5138), but Mr. Power admitted that they could only "stand in the place of one of the parties" entitled to decide the point.

The medical witnesses, therefore, proposed that "a fair share of the power" of determining the amount should rest with the professional body.* (14979—14990)

They represented, moreover, the advantage of some provision, which should enable both parties, in each locality, to regulate and modify the remuneration within just limits, instead of imposing an unalterable standard upon all parts of the country. The various circumstances of different unions would induce both guardians and medical practitioners to desire some variation in the standard; for example, "peculiarities of situation and topography, the physical condition of the people, their employments and habits of life," (15478)—the proportion of inhabitants receiving relief at the public cost, and the ordinary rate of medical charges, (18205)—besides, the most important circumstance of all, the distance of parishes, and the density of population.

The method suggested for carrying into effect this principle was, that the medical men resident in every union should appoint a representative, "call him, if you please, a medical guardian or assessor," (14990) who should act with another assessor to be appointed by the board of guardians, in regulating the payment of the medical officers;

* "In fact, a payment per diem." See observations by N. R., R. C., and H. W. R., Prov. Trans. vol. v. p. 446; from which, probably, Dr. Kay borrowed his idea.

† The medical officer should, under such an arrangement, grant a certificate to the applicants, stating that the case required medical treatment, which being presented to the relieving officer, would enable him to inquire into the circumstances of the patient, and report thereon to the guardians. "Observations," Prov. Trans. vol. v. p. 446.

‡ Who would be more proper than the clergyman of the parish?

* Dr. Tweeddale's principle of determining the remuneration is somewhat similar. Med. Gaz. vol. xx. p. 442.

and that if any irreconcilable difference should arise between the local assessors, the point should be referred to a medical commissioner appointed by the crown. (14991, et seq.)

And that an average standard of remuneration, calculated on certain well-known data, should be adopted for the guidance of the medical commissioner or director, in his decisions on appeals.* (5095, 5163, 14979)

The elements of the calculation are the price of medical advice, of medicines, and payment for distance. The two first may be considered constant items, and their average cost to the medical officer, in each case of sickness near at hand, was readily estimated; but the third, i. e. the average expense of distance, could not be accurately ascertained. It would depend on the general size of the districts, and might consequently be reduced by diminishing their extent.

The expense of an adequate provision of medicines has already been shown to be not less than 2s. 6d. per case; and Mr. Farr assumed that 2s. 6d. would be a very moderate remuneration for advice, in a case lasting twenty-three days, which was the average duration deduced from the returns. This would allow about 4d. (perhaps nearer 6d.) for each time of seeing, or prescribing for, the patient. (15819) Five shillings per case was, therefore, admitted by the medical witnesses to be a reasonable payment for the class of regular paupers, in towns and parishes having resident medical officers; that is, the sum paid per head on the pauper list should, on the average, afford the above amount of remuneration for each case. Now supposing the average cost of distance or journeys should be only 1s. 6d. per case, (and if the districts continue of the present size, this rate of payment would be utterly inadequate,) the total sum would amount to 6s. 6d., which is just double the existing average remuneration, (vide § 25.) Another witness considered that 7s. or 8s. would be a more equitable average. But, with regard to cases occurring among individuals not on the pauper list, it was agreed on all hands that these should be provided for by a higher payment, 10s. (14996) or a sum between that and 12s., (15481) including the charge for distance, was considered to be a fair average.

The parliamentary committee approved of these terms, but considered that they "must, in some degree, be governed by local circumstances, by the number of practitioners, by the nature of the country, by the degree in which the residences of the poor are scattered, or near together, and by the general rate of remuneration previously existing in the district." Your committee fully assent to this view of the subject, as it strongly proves the necessity of the local assessors, before suggested.

§ 51. The importance of increasing the remuneration, on account of distance and area, was readily admitted by the assistant commissioners, (1740—1831—4238) though they were not prepared to recommend any definite rate of augmentation.

* Dr. Kay elsewhere suggested, (5097,) that the amount of remuneration should not be higher than the payments made by the independent poor, as a class, "provided it can be ascertained in any way, what is the average sum paid by them for medical assistance." We conclude that he referred to the remuneration afforded by medical clubs. This, however, appears to be reversing the connexion of cause and effect.

† If parochial salaries had been reasonable, the payment from clubs would have been higher.

If the expenses of medical relief, in conformity with the recommendations of the parliamentary committee, were charged to the separate parishes of every union according to the number of inhabitants, or parishioners, who may have received such relief, it would be necessary to establish an additional rate (in the form of mileage) according to the distance of each parish from the medical officer.

But Mr. Farr suggested that the augmentation should be computed on the entire area of a district, which, however, appears to your committee incompatible with a system of parochial charges.*

If another mode of calculating remuneration were adopted, which he recommended (vide § 26) in order to check the anomaly existing in the metropolitan districts, (the cases there being only of thirteen days' average duration,) the cost of one pauper patient (or of several in succession) sick for a year, would stand thus:—2l. for medicines; 2l. for attendance; and 1l. 5s. for journeys, making 5l. 5s. in all. His calculations are unexceptionable, except as relating to distance, which your committee are of opinion requires a higher rate, and should be computed from more extensive and definite data than have hitherto been collected.

It should be observed also, that Mr. Farr's calculations apply only to the pauper list, and not to extra cases.

§ 52. One advantage of separating the cost of the several items of medical remuneration, is that it gives a facility for also separating the supply of medicines from that of attendance, (15505) a point strongly urged by the late poor-law committee of this association, and which we consider of great importance where it is practicable. Dr. Kay, however, (10408) believed that "the difficulties in the way of such an arrangement were infinite, and that it could not be carried out," except,

First, in the case of workhouses, where he considered that the drugs for the treatment of "in" patients, as well as the more important and commonly used surgical instruments, should be supplied by the board of guardians: (16056) this arrangement being the "subject of special regulation by the poor-law commissioners, who could enter into such a contract for the supply of workhouses throughout the country, as would greatly diminish the cost."

The security for a supply of unadulterated medicines would lie, Dr. Kay thought, in the publicity of the commissioners' proceedings, and in the reputation of the wholesale houses whence the drugs would be procured. The commissioners "would act under the best advice," and "employ practical chemists to test the supply, and to prevent abuse."†

Secondly, in the case of *parochial medicine chests*, which were strongly recommended by Mr. Ceely, (15503) and approved by Dr. Kay (16097) and Sir Astley Cooper, (16038) as affording facilities to the poor in obtaining their medicines, and to the practitioner in arresting disease in its early stages. It was suggested that in every country parish, a

* In illustration of his principle, he mentioned 1s. per case, if the area were under five square miles; 3s. if under fifteen square miles; and 6s. if under thirty square miles; making the total respectively 6s., 8s., and 11s. per case.

Colonel Wade thought that the sum per case might vary from 4s. in towns to 9s. in the country, according to area.

† It is not improbable that he derived his ideas from a similar recommendation in the "Observations" published in the Prov. Trans. vol. v. p. 540.

moderate stock of the ordinary remedies might be kept in a chest, "from which the surgeon might dispense the medicines, while travelling in the discharge of his duties."*

The expense would merely consist in "providing the chests, depositing them in some convenient apartment, and making an additional remuneration to the surgeon," if he furnished the medicines; "but I cannot think," said Dr. Kay, "that the increase of expense would be at all commensurate with the benefits to be obtained from the arrangement."

It appears to your committee that the evils, to mitigate which parochial medicine chests have been proposed, would find a more efficient remedy, in the majority of instances, by a diminution in the size of the districts.†

With regard to workhouses, however, the advantage of a provision of medicines and a dispenser, at the expense of the guardians, cannot be doubted; and in that case, we see no reason why the poor, living in the neighbourhood of a workhouse, should not, as well as its inmates, obtain their medicines from this source; nor have we heard any sound objection to the establishment of parochial dispensaries, in populous towns *not containing workhouses*.

The only item that would then remain to be estimated, would be the value of the advice of the medical officer, (16056) which (Dr. Kay thought) should be calculated differently in the cases of persons treated in the workhouse, and those placed on the out-door pauper list;‡ though both alike entitled to medical relief, without the intervention of orders. (16060)

Mr. Gulson objected to the guardians supplying medicines, but approved of their providing trusses, "because," said he, (1822) "there would be no injury to a man, in the board of guardians giving him a truss, (even if unnecessary,) though it would be dangerous for them to meddle with quinine," &c. &c.

Mr. Gulson doubtless felt the force of the commissioners' remark in their first report, that "the pauper was exposed to the danger of being supplied with medicines considerably beyond what were required for his proper treatment," though he did not appear to recollect that if the guardians supplied quinine, &c. under the direction of a competent medical officer, the patient would be exposed to no greater danger than in their provision of trusses, under similar advice. The "danger," to which he and the commissioners alluded, probably threatened the pockets of the rate-payers much more than the lives of the poor.

§ 53. Midwifery, it was generally agreed, should

* The objection urged on the ground of the additional trouble it would impose on the medical officer, Mr. Coely thought, might be obviated by having certain articles prepared at his house, and kept ready for use in the medicine chest; any complex preparation might be sent for in the ordinary mode.

† "It is clear that inconvenience may arise from the too great extent of medical districts, especially in respect of sending for the medicines; and we are of opinion that this, although it might in some cases be diminished, would not be effectually prevented by the establishment of medicine chests in the distant parts of a large district. We conceive that the difficulty of providing for the proper custody of these depôts of medicine—the possibility of mistake in administering them—the deterioration of the medicines from their being only occasionally demanded—are serious objections to this arrangement; and that it ought not to be resorted to, if it is possible, by contracting the size of the districts, to avoid the necessity for it." Report of P. L. Com. 1846, p. 46.

‡ Mr. Farr's mode of calculation on one patient sick for a year, would answer for workhouses.

be paid for by a separate arrangement, at so much per case.

Dr. Kay thought that, among the permanent poor, there would not be found many cases of midwifery, and consequently that this branch of medical relief, being almost confined to cases of difficult labour, (16102) involving "sudden and urgent necessity," would be more properly included among the casualties. Attendance on the wives of labourers, in *ordinary cases*, appeared to him "to be that kind of medical relief which ought to be the earliest got rid of, because the parties had for several months the necessity for providing attendance in view." (5119) It was suggested by one of the medical witnesses, (15039) that for such cases midwives might be employed,— "that is, whenever there is one in the neighbourhood qualified to undertake the duty; the medical practitioner being called in only when she may see the necessity for it."

The amount of remuneration would depend on the class attended. For ordinary cases, if the surgeon should attend such, the sum of 10s. or 15s. (now generally adopted) would not be objected to; (15043) but if, as Dr. Kay and Mr. Rumsey proposed, the surgeon were only called to cases of importance and difficulty, such a sum was "too trifling to be mentioned."

Dangerous accidents, fractures, and important operations, were also considered to demand specific remuneration, "on the ground of the great responsibility attending the treatment of such cases; the ready detection of, and the severe consequences likely to ensue from, error or neglect; the prolonged and careful attention they require;" (15518) and the expense and inconvenience to which the surgeon is subjected by the suddenness of the call for his assistance.

Surgical or obstetrical cases, requiring serious operations, it was also admitted, might demand a consultation, in which case due provision should be made for remunerating the consulting practitioner. (16090)

CURE OF SHORTSIGHTEDNESS BY OPERATION.

M. CUNIER has recently repeated with success in several cases of myopia the operation proposed by M. Guerin, and performed frequently in this country by Mr. Adams. The wife of an officer could scarcely distinguish large print with spectacles No. 3; the internal and external recti muscles were divided, and on the thirtieth day after the operation she was able to read nonpareil without glasses.

On a young man at Antwerp, who was so shortsighted that he was nearly blind, M. Cunier divided, by the subconjunctival method, the internal and external recti, after which he could read without glasses moderate-sized print. The third patient was an Englishman who, for the last two years, was unable to read any kind of print whatever; on the third day after the operation he could read bourgeois with glasses, No. 6; and on the eighth day the smallest print. In the fourth patient, there were evident signs of contraction of the inferior oblique, which muscle was divided. M. Cunier proposes to publish these and several other cases in detail.—*Gaz. Med.*, No. 28.

TRISMUS NEONATORUM.

M. BOIRAU, a physician at the Isle of Bourbon, where this disease makes dreadful ravages amongst infants, observed that all those attacked by it presented marks of inflammation about the umbilicus. Considering it, therefore, as a species of traumatic tetanus, he recommended that the dressings should not be removed from the chord before the fifteenth day; and this practice was found to succeed in preventing the development of the disease.—*Ibid.*

CURE OF TRAUMATIC TETANUS BY DIVISION OF THE NERVE.

CASE I.—M. Pecchioli says that he had already proposed this operation to a person affected with tetanus, who refused to consent, and died. Since then he had an opportunity of performing it on a young man labouring under traumatic tetanus, from a lacerated wound of the last joint of the great toe. The disease had existed about twenty-four hours. M. Pecchioli made an incision with a double-edged bistoury over the point where the internal saphenal nerve passes over the first cuneiform bone, and thus divided the parts down to the bone. Scarcely was the operation over when the pain of the foot and leg ceased; the spasms gradually diminished, and then ceased altogether.

CASE II.—Five months after this, a man, thirty years of age, was admitted into the same hospital, also labouring under tetanus, from a wound over the two first metatarsal bones. An incision about eight lines in length was made above the internal malleolus, and the saphenal nerve, with its accompanying vein, was divided. In this case, the pain and spasms did not cease so quickly as in the former, and it was thought that some nervous filaments had escaped; but on the second day the spasms were mitigated, and the man soon recovered.

[This practice is one well worthy of imitation in some cases of tetanus, although it is clear that division of the nerve will not always succeed, since even amputation frequently fails. The operation, however, is so trifling a one, in comparison to the danger of the disease, that it should be tried whenever there is the least probability that the affection may be connected with injury of a superficial nerve.]

REMUNERATION OF MEDICAL PRACTITIONERS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—A decision of the under-sheriff, on the authority of Lord Wynford, given in the Sheriffs' Court, on Thursday, in the case of *Simpson v. Dismore*, and reported in the "Morning Chronicle" of Friday, July 9th, "that a surgeon cannot recover for attendance and medi-

cine both," seems to me to require confirmation, as it involves very materially the interests of those who, like myself, prefer making a fair additional charge for their services, when a very small quantity of medicine is required, to inundating their patient unnecessarily with draughts, pills, and potions.

The surgeon in this case charged 5*l.* 19*s.* for medicine, and 3*l.* 2*s.* 6*d.* for surgical visits, the disease being a bad leg. The charge for medicine was granted, while that for surgical visits was refused. You will oblige me by information on this subject, that I may shape my course accordingly.

If our fellow-citizens will not allow us to be honest, they have themselves only to blame for having an apothecary's shop made of their bellies.

I am, gentlemen,

Your obedient servant,

A SUBSCRIBER.

July 10, 1841.

[A member of the College of Surgeons can recover in surgical cases only and for attendance; but we believe that a general practitioner can recover for both medicine and visits.]

NEW HOSPITAL.

THE Municipal Council of Paris has decided on the establishment of a new hospital in the northern part of Paris. It is to be called *Louis-Philippe's Hospital*; will contain six hundred beds, and is destined for the treatment of chronic diseases.

COLLEGE OF SURGEONS.

BRANSBY B. COOPER, Esq., has been elected Professor of Anatomy and Surgery to the Royal College of Surgeons, in place of F. Tyrrell, Esq., resigned.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, July 16, 1841.—Joseph John Edward Porter, John Henderson, Eaton William Waters, James Philip Lawrence, Benjamin Blaine, Richard Austin, Rupert Pincott, John Scott, John Jeffree.

Monday, July 19.—David Kent Jones, John Coventry, John Philips Potter, John Innes, Joseph Jee, Edward Gregory, William Skinner, Thomas John Starling, William Reynold Deere Salmon, William Withey Gull, Daniel Wheeler.

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COURSE
OF
LECTURES ON PHYSIOLOGY AND
SURGERY,
DELIVERED AT ST. GEORGE'S HOSPITAL,
BY JOHN HUNTER, F.R.S.

(From the Manuscript of Dr. Thomas Shute.)

LECTURE VIII.

SUPPURATION.

IN suppuration the process is always the same: nature, before it begins, sets bounds to it by adhesive inflammation. It is not caused by the air, which is generally said to produce it. It is uniformly the same, whether it arises from external violence, the constitution, or some disease of the part. Violence alone is not sufficient to produce it; for instance, in a wound, if the parts are brought into exact contact, they will unite and get well without any suppuration; but if the parts should remain exposed for a certain length of time, then suppuration follows. It is the exposure, therefore, which causes suppuration, and not the injury. Exposure, however, is not always necessary to suppuration, for matter forms without it, as in abscesses. Although violence simply is not sufficient to produce it, yet where violence is such as to produce the death of a part, or to render it incapable of performing its functions, the suppuration becomes necessary for its removal.

That air does not produce it, is proved by the following circumstances:—Birds have cells in their bones, which communicate with their lungs, so that if the os humeri of a hawk is cut through, and the trachea tied up, the bird will breathe through the bone, till the adhesive inflammation obstructs the cells. There is the same communication between the cavity of the abdomen and lungs; if the abdomen is opened, and the trachea tied, the bird will breathe through the abdomen until stopped by the inflammation. If air could have produced the inflammation, it should have happened before any wound was made. In birds, the communication of their bones with the lungs is very general throughout; there is a communication also with the spinal marrow, and perhaps with the brain. If the access of air could produce suppuration, it must happen in emphysema. Suppuration occurs in cavities from the stimulus of imperfection being given to them, and which would be produced equally as soon in vacuo as when the air has free access to them. The membranes of the nose and of the urethra have equal access to the air at all times, but suppuration is never produced until they are by some cause previously inflamed. Inflammation arising from a specific disease, is very slow in its progress; but arising from accident is generally very quick. Thus, when an inflammation attacks the breast of

a woman, and advances very rapidly, we may be at once certain that it has no cancerous tendency. Suppuration is naturally very violent, it is a great effort of the constitution to change the adhesive inflammation to the suppurative. This change frequently is very sudden. The quicker the suppuration advances, the more healthy it is: therefore where it takes place, it should be promoted as much as possible.

Symptoms of Suppuration.

The symptoms of suppuration are those common to inflammation. We have a great variety of sensations: pain seldom exists alone without other sensations accompanying it. Therefore people in common language will express their different feelings by different terms, to convey their ideas; thus they say that a part is sore, or that it is a heavy pain, or a numbed, or like the gnawing of rats, &c. And whenever pain exists, it generally gives an idea of the disease. Thus, in suppuration, the sensation gives an idea of its nature: it is attended with a sore pain of the most simple kind, pain unmixed with any other sensation; other diseases have something joined with this pain. The pain is greatest at the dilatation of the arteries, therefore the pulse may be counted by the throbbing of the part, which is the most characteristic mark of the disease. As the suppuration advances, the skin becomes of a pale scarlet colour. The surrounding parts also become oedematous. These appearances are from the adhesive inflammation preceding the suppurative. Exposed parts always suppurate; but exposure is not always necessary to suppuration.

The change from lymph to matter is very gradual. First, coagulable lymph is secreted, which secretion gradually alters its fluid, till at last it forms pure pus. None of the fluids undergo any change after their secretion. Lymph and pus are therefore found together in an abscess. This has introduced an idea among surgeons, that abscesses ought not to be opened until the matter is concocted, because they have observed, that when they have been opened early, lymph has been discharged. All their attention has been given to the matter without considering the parts surrounding it. The alteration in the disposition of the constitution is very sudden: it produces shiverings. But the change produced in the action of the vessels of the part is very gradual—therefore the slow change from lymph to pus.

Suppuration begins in the surfaces of the cells of the cellular membrane, first forming coagulable lymph, then pus in the same manner as in empyema. When inflammation has so far destroyed or injured a part that it cannot go back by motion to its former action, then suppuration begins. The disposition of the vessels in suppuration is very different from that of inflammation, which is shown in granulations; for if they are stimulated,

the adhesive inflammation comes on, which at once stops suppuration, and the progress of their growth. Suppuration and ulceration are two very different processes, frequently taking place at the same time, in one and the same part. Suppuration is sometimes stopped by the constitution, and the matter which has been formed is absorbed. Matter formed in buboes is sometimes absorbed. This frequently happens in scrofulous abscesses; the parts lose their disposition for forming matter; that which was formed is absorbed, and the parts get well without the adhesive inflammation taking place. No opportunity has yet offered to examine in what state the parts were left.

Matter is probably perfectly innocent, and not a deposit of morbid humours. It may be repelled into the constitution without doing any mischief.

Treatment of Suppuration.

The use of suppuration is not well understood: granulation is not a necessary consequence of it. To know how to prevent suppuration would be one of the most useful discoveries in surgery, for it often is the cause of death; as in suppurations of large internal cavities; the thorax and abdomen, &c. It is doubtful whether any application will hasten suppuration. Some applications may hasten ulceration, and by that means bring the matter to the surface quicker. Parts that are indolent require stimulating to produce a good suppuration. Poultices do not ripen, and can only act by soothing the part. Absorption of matter is a principle of the animal economy which sometimes takes place. Whenever we can catch any principle of the animal economy, we ought carefully to attend to it, that it may be made use of to advantage. We have less power over the absorbent system, than any of the vessels.

If matter be formed in a venereal bubo, it is best to disperse it if possible, for although the virus is carried into the constitution, it prevents pain and a troublesome wound. The virus may be destroyed by its specific remedy. When suppuration is slow it is right to hasten it, for the quicker it is formed the better it will be. The cure afterwards will be performed the better. Every operation of the constitution is performed best when it is quick. Stimulants when they are applied to a sore do not appear to increase the discharge of matter, therefore they cannot be supposed to increase suppuration, although they may ulceration. Ulceration is in proportion to the degree of inflammation; the greater the inflammation the quicker the ulceration is performed. Inflamed parts are easiest when kept moist, therefore a poultice will give ease to an abscess when the matter is near the skin, by softening the stretched cuticle. The pain in a great degree arises from the dried cuticle binding the cutis.

OF PUS.

It is one thing to know the operations of nature, and another to know how she produces such effects. A man who perfectly understands mechanics may, by examining a watch and taking it to pieces, be able to tell the motion of every wheel, and the ultimate end of all their motions: yet he may not know how that watch was made—the manoeuvres of the watchmaker in making the several parts.

It is difficult to say how parts make pus; the same vessels discharge it as before discharged lymph, but their actions must be considerably altered. When it is first formed by the vessels, it is of a darkish yellow colour; the same vessels gradually change the colour of their secretion, the pus becoming whiter and whiter, until it looks like cream, which is called laudable pus; it also becomes more viscid. Its changes may be observed on a stump; when the bleeding is stopped, if dry lint is applied, it will be glued to the wound by the coagulable lymph which exudes from the exposed cells; after a time these cells secrete pus which will throw off the lymph, and of course the dressings which adhere to it.

Nothing can be found in the blood similar to pus. It is a more complete secreted fluid than many others in the body; the tears seem to be nothing more than serum with a little sea salt.

Extraneous substances are to be found in pus, as they are found in the blood and secretions, as iron, salt, &c. These extraneous substances pass off with pus as with other secretions, but they do not enter into the composition of the secreted fluid. For the secretion of pus, probably new vessels are often formed. They may be called glandular. Solids do not enter into the composition of matter. It has been generally supposed that matter was formed by fluid and solid particles; the fluid destroying or converting the solids, which it was in contact with, into a fluid similar to itself. It is usually called a melting down of the solids; which, if true, it would be difficult to conceive that granulations could be formed, yet we find that they form the best pus. It is absurd to suppose a part forming a matter which is continually destroying itself; but it is easy to look on one side of the question, and not on the other. The peculiar qualities of pus are its colour and consistence. When it is good its colour is white, very much resembling cream. When viewed in a microscope it appears to be composed of opaque globules swimming in serum; it derives its colour from these globules, each of which when separated from the rest are white. This whiteness is owing to the opacity of each particle, and not to a number of transparent bodies particularly arranged, which will occasion whiteness, as we see in the froth of water, &c. The greater the proportion of the globules to the serum, the better is the pus.

Pus is probably a decomposition and new combination of the blood.

Though it appears like cream, it has not perfectly the same properties. Cream is an oil and mucus combined: by churning, it is deprived of that combination and becomes butter. In melting butter cooks add flour, which forms mucus to combine it, and prevents it from turning to oil. Perhaps pus is not only composed of serum and globules, but has also some lymph, for it in part coagulates. The proportions depend on the health. In bad matter there are few globules. It always shows the state of the solids.

When a cow calves, her milk is at first very thin, there being few globules in the serum. The proportion of globules gradually increases from the time of calving. If the cow is milked for two years, the milk will be almost entirely composed of these globules, being almost all cream. If an incision is made at this time into the udder, the milk will become thin. It will also change its

consistence if the cow is milked too near her time of calving, for then it changes from the thick to the thin consistence.

Pus always possesses the specific property of the part which secretes it—as in the small-pox, venereal disease, cancer, &c. It is no stimulus to its own sore, being always in perfect harmony with it: if it was not, it would be impossible for the part to heal. The extraneous substances which are sometimes contained in it, as in other secretions, may stimulate the sore: sometimes it excoriates the surrounding skin. The structure is the same which secretes pus and forms granulations.

Good pus is itself perfectly sweet, but under some circumstances becomes putrid—in recent sores, and when mixed with blood, which becomes putrid sooner than pus. It also has a greater tendency to putridity when the part is inflamed. In specific diseases it is soon putrid. It is also perfectly sweet in an abscess, unless it is situated near the colon or rectum, or near the lungs, so that the air has access to it. In diseased sores it has the greatest tendency to putrefaction. When discharged from a diseased bone it is very foetid. From its appearances answering to the disposition of its ulcer, we are enabled to judge of the state of a wound when it is out of sight.

The idea of a translation of matter is absurd, it can never move from one part to another as it is supposed. An induration may be removed by causing the part to suppurate. Sir John Pringle has made an experiment to prove that pus is formed from serum: he placed some of this fluid in a heat equal to animal heat, and after a time he has seen something falling to the bottom like pus. This was only the beginning of putrefaction. It being like pus is no proof at all: it may as well be said that glass is crystal, because it resembles it in many respects. If lymph or serum formed pus, the adhesive inflammation could never take place: the extravasated fluids must produce matter instead of cohesion. We are unacquainted with the use of pus.

OF ULCERATION.

The arteries are the vessels which carry the blood to every part of the body, to furnish it with matter for its growth, nourishment, and the secretion of fluids; and also to the excretories, where the parts are thrown off which have become useless. The veins at present are supposed to be entirely passive; they having the office of only carrying the blood back again to its reservoir, that it may go the same round.

The absorbents are another complete system of vessels, which may be called the modellers of the body. Their uses hitherto have not been completely explained. If it was not for these, we should have the bone of an adult very different from that of a fetus.

The actions of this system of vessels may be divided into, 1st. that of modellers; the taking up of healthy parts to regulate their form, as in the growth of bones: 2nd. the absorption of chyle for nourishment: 3rd. an absorption of parts in consequence of disease. This last may be divided into two kinds. 1. A general emaciation from disease, or from a partial wasting, which sometimes happens to a limb from some injury of its tendons or ligaments, thus causing a partial consumption.

2. The removal of some complete part, as in the spina ventosa. This may properly be called ulceration.

It may be difficult to conceive how a body should remove parts of itself: but it is as difficult to conceive how a body should form itself. Ulceration is caused by irritation. Any other means must be mechanical or chemical, which is not an operation of the animal economy. All its operations arise from the actions of the living principle. Ulceration may be divided into two kinds:—1. That which is attended with suppuration; 2. That which is not a consequence of suppuration, or attended by it.

The 2nd. species is seldom attended with pain, and sometimes with no visible inflammation. It seldom affects the constitution. The cause of its not being painful, is the slowness of its operation; not being sufficiently quick to come within the medium of time which produces pain. It is this operation which separates sloughs, and causes bones to exfoliate. It is caused by pressure—of which there are two kinds—one endowed with life, the other not. A much less degree of internal pressure will cause ulceration, than that which is external; and it is necessary that it should be so, for it is proper that parts offending should be let out as soon as possible. But such as are without and pressing inwards, their nature thickens the parts, giving them additional strength to resist the injury. If the pressure is so great that the parts cannot support it, then nature removes them by ulceration out of the way of the pressure.

This species of ulceration may be observed in an aneurism of the aorta at its curvature. As the aneurism enlarges the parts surrounding it are taken up; at length the coats of the artery come in contact with the vertebrae: the pressure now being on both sides; within by the blood and without by the bones, the coats of the artery are soon taken up; and after that the bones themselves. This ulceration is preceded by the adhesive inflammation, which as the ulceration advances keeps going before, let the thickness be ever so great. This is particularly beneficial, for otherwise the blood would soon extravasate into the cells of the cellular membrane. It rarely happens that an aneurism bursts internally.

A highland soldier in the Dutch service had a tumor on the pia mater, between the convolutions of the brain: the tumor gradually made its way to the surface, the dura mater, bone and the scalp being gradually absorbed. This could not be produced from pressure, for action and reaction are always the same: the tumor was a living part, and there was no appearance of ulceration upon it, or of suppuration. Parts endowed with simple life, and producing ulceration by their extraordinary pressure, do not cause suppuration, whereas those which are entirely extraneous produce it. The ulcerative stimulus is always next the surface. In spina ventosa the bone becomes enlarged from the pressure of coagulated blood contained within it.

Absorption must act from a stimulus. A sense of weakness in a part becomes a stimulus. Debility, therefore, appears to be a cause of ulceration. When a part becomes so weak that it cannot support itself, the stimulus is given to remove it.

The adhesive inflammation always attends ulcera-

tion: the use of it is to bring the matter or substance to the surface. If matter forms in the middle of the thigh, the adhesive inflammation surrounds it to a certain distance: as the ulceration advances towards the surface, the adhesive inflammation keeps going before it: if it did not, when the ulceration had got through the first adhesions, the matter would get into the cellular membrane, and could never arrive at the surface. Thus ulceration leads it to the surface, and the adhesive inflammation goes before to prevent its diffusing. This process is attended with soreness, something like the pain caused by a cutting instrument.

Some ulcerations of the specific kind are attended with little pain: sometimes, however, they are attended with a great deal of pain, but then the suppuration is very quick.

Ulceration seldom, if ever, affects the constitution, not producing rigors, fever, &c.

The separation of dead parts from the living, is attended with very little pain.

Some parts are more susceptible of ulceration than others. The cellular membrane more than any other part: in this a very slight degree of internal pressure will produce it. A milk abscess, when it has burst at the superior part of the breast, will sometimes ulcerate afterwards at its most depending part, from the pressure of the matter which lodges and produces a second opening at the inferior part of the breast; and thus the two openings have communication.

Granulations, from appearing very florid and healthy, often suddenly become altered, having an ulcerated appearance; when this is observed, the surgeon may be certain that his patient has suffered a great deal of pain, there being nothing so painful as ulceration. The parts susceptible of ulceration are those situated between the extraneous body and the skin. The extraneous body does not always go in a direct line to the surface, because parts that are but little susceptible of ulceration being in the way, it rather chooses to follow the course of the cellular membrane, as when parts are covered by a strong fascia. The skin is much less susceptible of ulceration than the cellular membrane; therefore, when abscesses break, we frequently have the cellular membrane hollowed out for some way underneath, the skin hanging over.

ILLUSTRATIVE CASE.

A gentleman was wounded by a small sword, which penetrated the abdomen below the navel, which wound healed up. Six weeks after the accident, he had a large tumor at the superior part of the abdomen, in which matter formed; it was opened, and the discharge killed him. On opening the body, an adhesion was found between two of the intestines, opposite the wound, which was supposed to be caused by one or both of them being scratched. The matter which formed above was unconnected with the wound: it was formed between the epiploon and peritonæum: the great arch of the colon adhered to the epiploon: the matter had passed through the peritonæum, abdominal muscles, and three inches of fat, to make its way to the surface, although it would not have had above half an inch to get through the intestine. Thus, when matter forms near a cavity it makes its way to the surface, notwithstanding the great difference of the thickness. Many similar cases

have been related by surgical writers—some by Le Dran. Matter on the lungs will sometimes make its way to the air-cells. An abscess on the trachea will often open into it.

The ulcerative process has no power over the cuticle, therefore the matter forces its way through it. This causes abscesses on the hand and sole of the foot to be so extremely painful: the thickness of the cuticle preventing the matter from coming through. Nothing is more painful than a whitlow from the inflamed part being tightly bound by the thickened cuticle, as by a bandage—bread and milk poultices are nowhere more useful than in this disease, they soften the cuticle by their moisture, relax it, and give great ease to the inflamed cutis. In these cases the cuticle is frequently separated from the cutis for a great length. Ulceration often arises from the disposition of parts. In Anson's voyage, the callus of long standing was taken up, and old cicatrices became ulcerated. New-formed parts are most susceptible of the stimulus of weakness, therefore old sores frequently break out. Suppuration follows ulceration immediately. If a part is removed by the knife, the wound will be three or four days before suppuration commences: but if the same is removed by ulceration, suppuration immediately follows: from this it appears that the parts are prepared for suppuration previous to ulceration, which may perhaps be done by the adhesive inflammation which goes before the ulcerative. A wound when ulcerating appears full of holes, is foul, and the discharge ichorous, the skin scolloped with its edges turned outwards. In digging a hole in the ground the part dug appears full of holes, and the earth thrown out on the side fall of heaps. In like manner it appears in wounds; when ulcerating, full of holes; when healing, full of heaps.

In the treatment of ulceration we ought to hasten it as much as possible, if we want to bring parts to the skin; for which purpose warm poultices and warm plasters are applied, such as diachylon with gum, &c.: these by stimulating will hasten ulceration.

Topical applications have little effect in preventing ulceration. If it arises from weakness of the constitution, strengtheners must be used; if from increased action, where there is great strength in the constitution, then soothing means must be used: opium externally applied is the most powerful of these. If from a specific disease, then the specific remedy should be used, for no other medicine will have any effect. If there be no specific remedy, as in the scrofula, then other means must be tried: opium might be used as an experiment, but probably it would do no good, perhaps rather harm, for this disease has something sedative in its nature. Some ulcerations about the skin are very difficult to cure; this frequently happens between the toes, spreading from one to the other, and about the feet; as soon as one heals another breaks out, and so on for a twelvemonth or longer, resisting everything, external and internal. These cases have given way more to opium topically used than anything else.

When suppuration begins in the centre of a part, it does not know which way to go, therefore it sometimes takes one course, at other times another, as in psoas abscess. It turns out of a direct course when parts obstruct it which are

difficult to ulcerate, therefore we find it rather taking the course of the cellular membrane, than going through a muscle or blood-vessel, dissecting parts as it were in its course. If matter be formed, and there be a part situated within the cavity which presses on that side next the surface, it will ulcerate there, let the opening be made in any other part. Thus, if a large quantity of matter be formed upon the elbow and about it, the elbow will come through the integuments even when a dependent opening has been made, and granulations are formed. In like manner when matter has formed about the trochanter, let the opening be made where it will, the bone will come through the integuments, which is a case that frequently happens.

These cases show how slight a degree of pressure internally is sufficient to produce ulceration, for the skin is ulcerated from the pressure of granulations which are growing on the trochanter, they appearing healthy everywhere on its surface.

ON THE
PHYSICAL ALTERATIONS OF THE BLOOD
AND
ANIMAL FLUIDS IN DISEASE.

By M. ANDRAL.

No. VII.

Temperaments; anæmia; general observations on the changes of the blood which take place in fevers and inflammation.

SANGUINEOUS TEMPERAMENT; PLETHORA.—As certain forms of disease consist merely in excess of temperament, it is proper to examine the conditions of the blood in various temperaments; there is no other difference than one of degree between the sanguineous temperament and plethora, whether natural or morbid. Considerable influence has been attributed to the blood in the production of temperaments; people are said to be sanguineous under the supposed idea of an excess of blood; the influence of other fluids is expressed by the terms bilious and lymphatic. The sanguineous temperament is a condition of the system which, when much increased, constitutes plethora; people of this temperament are usually very strong, and all their functions are extremely active; it has been affirmed that they have a greater quantity of blood, and that the latter is more rich than the blood of other persons; as proof of this, the existence of a large clot with tendency to buff, has been cited, as indicating an increased quantity of fibrin. But, in the first place, we cannot affirm that sanguineous persons have more blood than others, since the normal quantity of that fluid in the human body is unknown. From the observations of M. Andral, however, it would appear that the solid elements of the blood are increased while the serum is diminished. In the second place, we cannot rely on a simple inspection of the clot; we must determine if it be the fibrin which is increased, or the other elements of the blood; it is generally thought that it is the fibrin, but this idea is far from being correct. Neither the fibrin nor the albumen are increased in the sanguineous

temperament, but the globules, which may augment from 137 to 140; beyond this latter we have a state of disease.

If the blood be examined before coagulation, it presents a deep-red colour, depending on the increased quantity of globules; the clot is large for the same reason, and because a good deal of serum is retained by the globules; but the firmness of the clot is not augmented, as people generally believe. One of the chief characteristics of plethoric blood is, that it never presents a perfect buffy coat; a circumstance explained by the small quantity of fibrin compared to the globules.

The signs of the plethoric habit are normal or morbid. All the functions are remarkably active; life is, as it were, in excess, from the excess of blood globules; the digestive process goes on rapidly; the respiratory apparatus is developed, and the capillaries always injected; hence the bright colour of the cheeks, lips, skin, &c. The heat of the body is high; cutaneous transpiration and the secretion of urine active; the urine is deeply coloured, and charged with salts. The passions are strong and easily roused, but though the brain be very active, the sensibility is not great, as in persons of nervous temperament; nervous symptoms do not belong to the sanguineous temperament; it appears that while the blood globules increase, the sensibility diminishes, a circumstance exactly the reverse of what takes place in chlorotic patients, whose sensibility is extremely acute; hence we may conclude, that an augmentation of the quantity of the globules produces an unusual activity of all the functions, save those of the nervous system.

The morbid signs or effects of plethora are of three kinds, viz. congestion, hæmorrhage, and fever. We all know how readily congestion of the brain occurs in plethoric persons; hæmorrhage, also, frequently takes place in the tissue of organs, or from the mucous membranes. The globules being increased in quantity, the normal proportion between them and the fibrin is changed, and the cohesion of the blood is lost. The acceleration of the pulse seems to depend entirely on increase of fibrin. Plethoric persons are not more disposed than others to inflammation, as has been generally supposed; indeed, they seem to be less disposed; but when inflammation does occur, it acts on a system in a state of superexcitement, depending on plethora.

The advantages of venesection in plethoric persons are explained by the condition of their blood. The effect of blood-letting is to diminish the quantity of globules; hence it combats directly the essential element of plethora.

LYMPHATIC TEMPERAMENT. ANÆMIA.—Of anæmia, the general feature is a diminution of strength, and deterioration of several functions; when the lymphatic temperament is carried to an extreme, it leads to scrofula, and not to anæmia. Ancient writers employed the words "lymphatic temperament," to express a condition of the system in which colourless fluids, and particularly the serous part of the blood, predominated. After the discovery of lymphatic vessels, the term was used in another sense, and applied to predominance of lymph in the lymphatic system. In latter days we have returned to the old idea. M. Lecanu tells us, that the quantity of globules is diminished in lymphatic persons; M. Andral coincides with this

opinion; the colouring matter of the blood is, also, in smaller quantity; hence the skin is pale, the iris light, the hair scanty; inflammation is slow and irregular in persons of lymphatic temperament. When in excess, this temperament leads to scrofula.

There is another condition of the system compatible with health, which we may denominate the anæmic temperament; when carried to excess, this constitutes chlorosis or morbid anæmia. In the anæmic temperament, the fibrin is not diminished, nor does its quantity fall until the state of anæmia is carried to a great height, as in cases of hæmorrhage, or considerable loss of blood; in spontaneous anæmia, the diminution of fibrin is not so considerable. The chief feature in anæmia is a diminution of the globules, but this varies much; sometimes it is slight, yet the symptoms are severe, or the reverse may occur. However, we may state it as a general rule, that the intensity of the anæmia is measured by the fall of the globules; it commences when the globules descend from 127 to 80, and is more evident as they fall to 60, 50, or 40; in some extreme cases they are as low as 27; the serum, in the mean time, augments.

SYMPTOMS OF THE ANÆMIC TEMPERAMENT.

—There is scarcely a function which is not more or less disturbed, the general sensibility, the intellectual faculties, motility, digestion, circulation. When the anæmia is slowly developed, the intelligence remains perfect, but when the loss of blood has been rapid and abundant, the faculties of the mind are deranged, and violent delirium ensues; the increase of serum and loss of globules change the properties of the blood which circulates through the brain. One would imagine that diminution of the globules should depress the functions of the nervous system, as it does other vital actions; but daily experience shows that the contrary occurs, that anæmic persons are extremely sensitive. The slightest noise disturbs the ear, and makes the patient tremble; the skin is acutely sensitive; the internal sensations are also exaggerated; the stomach is affected with severe pain, and the digestion impaired; various disorders of vision and hearing occur, with disturbance of the mind, pain in the head, hallucinations, &c. The motor power is likewise deranged; some individuals are affected with symptoms like those of chorea, and animals bled to death are violently convulsed.

The digestive process is always disturbed; the appetite fails, or is replaced by a morbid taste for various substances; the vomiting which occurs depends on weakness, and hence tonics or nutritious substances are digested more readily than those of an opposite nature; beef soup will remain on the stomach, while chicken broth is rejected. The treatment of cases of this kind must consist in the administration of tonics. The respiration is frequently impeded, and the action of the heart more or less disturbed. Palpitation, the true cause of which is sometimes mistaken by medical men, depends on the impoverishment of the blood, and is proportionate to it; the frequency of the heart's pulsation is not increased until the affection has reached a certain degree of intensity, but when it is at its maximum, the pulse becomes slow; this latter state, however, is extremely rare. The parts rich in capillary vessels are pale, because the blood is surcharged with serum; but congestions are apt to occur at certain points, and produce cir-

cumscribed patches of injection, as in the conjunctivæ, for example; they seem to depend on want of sufficient energy in the nervous system, and may with justice be called passive.

The ready manner in which they disappear under the use of tonics, proves that they depend on want of tone in the system. Hæmorrhage very seldom occurs: on examining the heart we find various abnormal sounds which are analogous to those depending on obstruction of the orifices; these sounds are of two kinds, one intermittent, the other constant; the former always coincide with the systole of the heart. Here we may ask, do these morbid sounds always depend on the changes in the composition of the blood now pointed out? Certainly not; hence the following propositions merit attention.

1st. When a patient has been bled several times, or suffered from frequent hæmorrhage, the *bruit de souffle*, either permanent or intermittent, often occurs, but not constantly.

2nd. In spontaneous anæmia the same bruit exists.

3rd. Whenever the blood globules fall below 80, the *bruit de souffle* is constantly heard in the arteries, and sometimes in the heart.

4th. The same often occurs with diminution of the globules between 80 and 100; or in rarer cases, between 100 and 125.

5th. In some very rare cases the *bruit de souffle* exists when the globules are at 131 to 137; hence we must conclude that it is not exclusively connected with diminution of the globules.

The above results were obtained from an analysis of 93 cases, in which the *bruit de souffle* existed in the heart or arteries. Amongst the 93 cases it was permanent in 56; and in the latter the globules were 28 times above 80; 13 between 80 and 100; 10 between 100 and 115; 5 between 115 and 125. It was intermittent in 3 cases, where the globules were below 80; in 13 between 80 and 100; in 8 between 100 and 115; in 5 between 115 and 125; in 3 between 125 and 137; and in 3 between 131 and 137. The intermittent souffle is less valuable as a symptom than the constant; the latter is more characteristic of diminution of the globules, and becomes intermittent as their proportion is increased.

The *bruit de souffle* occurs in several other diseases, as well as in chlorosis. In one case of rheumatism, where the globules were at 97, the permanent bruit was heard; it was intermittent in another case, where they were at 99; from 81 to 97, it was sometimes permanent, sometimes intermittent. This bruit very rarely occurs in pneumonia, although the patient may have been frequently bled; a circumstance readily explained by the inflammatory nature of the disease; but it should be remarked, that the globules never fall as low in pneumonia as in rheumatism. From the above, it is evident that abstraction of blood is injurious in persons of anæmic temperament, unless there exist some disease which imperatively demands it; on the contrary, substantial diet augments the globules, and hence is beneficial; the same remark applies to the preparations of iron, which increase the proportion of globules, and not the fibrin.

NERVOUS TEMPERAMENT.—When the nervous system predominates, individuals are said to be of

nervous temperament. In some persons of this constitution the blood is altered, in others not. Every physician knows that certain individuals can never bear bleeding well; the digestion suffers from it; palpitations occur, and other symptoms which indicate the evil influence of loss of blood. In persons of this description the globules are diminished, and if we diminish them still further by venesection, we give rise to various nervous disorders; abstinence from food, also, is not easily supported, especially when the stomach is diseased. How many gastric neuroses are produced and kept up by improper treatment and rigid abstinence! The secret of the miraculous cures effected by certain quacks, depends on their supporting the stomach by powerful tonics and substantial food.

ON THE SIGNS OF PREGNANCY.

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(Read at the Anniversary Meeting of the Southern District Branch of the Provincial Medical and Surgical Association.)

THE evidences upon which our judgment must rest in a case of reputed pregnancy, are of two kinds; first, those which can be derived only from the description of the patient, and secondly, those which are only to be gathered by the observation of the practitioner. It might at first sight appear, that the first of these classes of facts were the most to be relied upon, and in the general mode of estimating the question these are often solely relied upon. If a woman informs us that she has ceased to menstruate for several months, that she had for a certain period morning sickness, pains in the breasts, accompanied by a progressive increase in the size of the abdomen, and still more, if the patient assured us that she constantly felt the movements of the child, we should be ready to conclude, without hesitation, that this was an undoubted case of pregnancy; and certainly, if the mere choosing of a nurse, or bespeaking the attendance of the surgeon, were the only weighty points resting upon our decision, we might safely risk the matter, and give the patient the comfortable assurance of the probability of her being a mother. But where property or character or life are at stake, the above-mentioned symptoms, any or all of them, are quite insufficient to enable us to form a decided opinion, since, besides the possibility of the patient's intentionally deceiving us, there is no one of the above symptoms which may not occur without the existence of pregnancy. The same may be said of all the host of symptoms mentioned by authors, as indicative of this state. I shall not, however, detain you now with a detailed investigation of all those signs, the merits of which are generally well understood, but I will at once refer to a few of those indications which are sensible to the medical attendant himself, and not dependent upon hearsay, and therefore approach nearer to what we may term demonstrative proofs.

Dr. Kennedy (to whose valuable little work on this subject I am largely indebted in the drawing up of this paper, and which I would strongly recommend to every one desirous of studying the

subject of pregnancy) divides the class of proofs of which I am now speaking, into those subjected to the touch, those cognizable by the sight, and those to be discovered by hearing. The two first of these divisions I shall mention lightly, that I may particularly bring before your attention the last, or those signs detected by the ear.

1. The first sign to be detected by the touch is the state of the hymen. The presence of this membrane used to be considered a proof of virginity, and consequently of the absence of pregnancy; but in a case requiring more than a mere probable evidence this will fail, since its rupture may have occurred without impregnation, and it may be present in pregnancy, even so as to constitute an obstacle to delivery, which has occurred under my own knowledge, so as to require division at the time of labour. The indications to be derived by the examination *per vaginam*, from the state of the uterus, are important as corroborative evidence, though by themselves they are quite insufficient to ground upon them a decided opinion. The form of the os uteri, and the developed state of the body of this organ, prove to us that we have not to deal with a normal unimpregnated uterus, but this enlargement may arise from many causes besides the presence of a child, as from hydatid polypus, or dropsy of this organ. The most important sign of pregnancy to be derived from the vaginal examination, consists in what the French term *balottement*. In order to perceive this symptom with the greatest precision, the patient should either be erect or seated on the edge of a chair, as nearly erect as may be. With one hand of the surgeon now placed on the abdomen, the index finger of the other hand should touch the os tincæ, and if a sudden impulse upward is given by the tip of the finger, a fœtus of six or seven months will be felt to rise from the impulse, and after a moment to fall greatly down again upon the point from which it rose. If all circumstances are favourable this phenomena is easily produced, and at once communicates the conviction that we have felt a fœtus floating in the fluid of the womb. But, on the other hand, we must remember that this important sign can only be distinguished after the fœtus is of a certain age. Previous to the fifth month, the fœtus is too small to convey to the finger of the examiner any decided impression of *balottement*, and at the latter periods of pregnancy the relative proportion of the liquor amnii is frequently too small to allow of a sufficiently free elevation of the fœtus to produce the symptom clearly. After all, this sign, though ever so clear, only proves to us that there is a comparatively solid body floating in a fluid within the uterus; it does not inform us if the child is living or dead, nor does it even certify us that the floating body is really a child. Of all the signs cognizable by the touch, the movements of the fœtus afford the most certain and most valuable. By the aid of this mark, Mr. Crosse of Norwich, assisted by two other enlightened surgeons, rescued an innocent victim from the very jaws of death, by declaring a woman to be pregnant who had been condemned to death for murder, and who had, in accordance with the present very imperfect state of our penal code, been examined by a "jury of discreet matrons," and pronounced by them not pregnant. The innocent offspring was to have suffered with its guilty parent on the following day, but for the humane

interference of the above eminent member of our profession.

As, with many other evidences, this of the movement of the child, though when shown positively is most valuable, yet negatively is not to be trusted to. That is, though the presence of this sign pretty clearly demonstrates pregnancy, its absence is no proof of the contrary. I had lately to examine a young woman who had every appearance of pregnancy of about seven months. The tumor was most distinct, but upon the application of the hand in every possible way, I could distinguish no movement in the fœtus. I even grasped the tumor between my two hands, and elevated it from the spine on which it lay, but not the least movement could be detected, and had it not been for the aid of auscultation, I should never have proved that there was a living child in the uterus. The evidences of pregnancy cognizable by the sight I shall pass over with little more than an enumeration, since none of them can be said to afford us more than presumptive proof. The enlargement of the breasts, the secretion of milk, the presence of a brown areola round the nipple, all of them ordinarily accompany the state in question, but they, one and all, are occasionally found to accompany different states of uterine derangement, independent of pregnancy. The same may be said of prominence of the umbilicus, and of the fissured and cracked state of the abdominal integuments, which may be the simple result of distension of any kind whatever. The fact seems to be, that with regard to all the evidences of pregnancy which I have now enumerated, or which are at present known, with the exception of that which I am about to mention, all that can be said for them is, that they afford valuable corroborative testimony, but that no one of them can be said to give positive and absolute proof of the pregnant state. It is true that their weight is sufficient, particularly when several of them are found united, fully to justify the delay in the execution of justice, in a case of capital offence; but a certain degree of doubt must always attach to them. But with auscultation we are capable of arriving at a much greater degree of certainty, so much so, that where its signs are positive and clear, all doubt is at once set aside.

If a person in the latter periods of pregnancy is subjected to examination with the stethoscope, the following are the phenomena distinctly and readily observable.

At some part of the abdominal tumor, generally at the lateral and inferior parts, a peculiar whizzing, blowing sound, of a pulsatory character, exactly resembling what Laennec called the bellows sound, is heard over a space varying in extent in different individuals. This souffle, as it is generally termed, will always be found, on examination, synchronous with the pulse of the mother, and has, by repeated examination, been proved to be produced in that part of the uterine circulation in the immediate vicinity of the placenta. This sound is seldom sufficiently distinct to be recognised clearly before the fourth month of pregnancy, and at that time is found most distinct just above the pubis, and as the uterus rises with the advance of pregnancy, the sound is heard higher up. From the presence of this symptom, we are justified in concluding; 1st, That there is a placenta within the uterus; consequently, 2nd, That there is a

fœtus: 3rdly, That the fœtus is alive; since it is found that after the death of the fœtus the whizzing souffle becomes changed into an almost simple short pulsation; and lastly, we can by this symptom detect pretty accurately the exact situation of the uterus to which the placenta is attached.

But the placental souffle is not the only indication afforded by the stethoscope. By a careful examination, we find at some part of the uterine tumor a sound which has been compared to the ticking of a watch, which is produced, in fact, by the pulsations of the fœtal heart, and in which the double action of the auricular and ventricular strokes is readily recognized. A comparison between this sound and the pulse at the mother's wrist, at once proves the distinctness of the two causes which produce them; the maternal pulse being generally from 75 to 85, while the short sharp stroke of the fœtal heart will be found to be about 120 to 140.

Here, then, we have another indication, which, if clearly and satisfactorily ascertained, is quite sufficient to set aside all doubt, both as to the fact of pregnancy and as to the life of the child. I was lately requested to examine a woman, who had always borne an irreproachable character, but who had several of the symptoms of pregnancy. In this case I have no doubt that if I had proposed a vaginal examination, I should have met with a positive refusal. The mere placing the patient on a bed, covered with a sheet, has not only a much less offensive appearance than the vaginal examination, but the intention of the treatment is hardly comprehended by the patient, and therefore willingly submitted to. In this instance, I readily detected a short quick pulsation, 140 in the minute, while the pulse of the wrist was 75. The case was at once clear, and no further inquiry was necessary. The greater delicacy of this mode of examination is worth the attention of the medical man, as he may by this means often spare the feelings of an innocent woman unjustly suspected.

A few days since, a woman was brought to me, with many dark hints to be very particular in my inquiries. I found that the catamenia had ceased flowing for six months. There had been morning sickness, and a progressive enlargement of the abdomen. I examined carefully with the stethoscope, but could detect neither placental souffle nor fœtal pulsation; and as the general health was much deranged, I considered that I was quite justified in giving her the full benefit of the negative evidence thus obtained, without injuring either her character or her feelings, until at a future time another examination, or the result of the medical treatment, shall fully decide the question.

The symptom now in question is so much the more valuable that it must, from its very nature, afford indications more certain than any other, since the action of the fœtal heart, the "*primum vivens, ultimum moriens*," must, of course, be an essential feature in pregnancy. It first makes itself cognizable by the stethoscope, though a few weeks later than the placental souffle, yet earlier than any of the more marked ordinary symptoms of pregnancy. It is, moreover, so easily recognizable, that the most unpractised ear will often readily discover it.

Let me not, however, be supposed to assert that in all cases of pregnancy the indications of the

stethoscope are equally clear; the sound of the fetal heart and of the placental souffle are not always at once and distinctly to be heard.

The case to which I before alluded is interesting on this as well as on other points. Almost every symptom of pregnancy was present. There was no hymen; areola large; abdomen considerably enlarged; neck of the uterus nearly obliterated; a hard bony tumor, like a child's head, felt in the vagina; os uteri plugged with mucus. On examining the abdomen, there was a body of unequal hardness to be felt through the integuments. Two circumstances only threw a doubt upon the nature of the case. 1st. The mother, who appeared a respectable woman, asserted that her daughter had been nearly as large as at present, for the last eleven months, and that for more than that time she had been increasing in size. 2nd. There seemed no movement of the fœtus. I pressed the tumor in every direction, through the vagina and through the abdominal walls; I lifted it up from the spine between my two hands, still not the slightest movement was felt. I now applied the stethoscope, and after a careful search heard the pulsation of the fetal heart very distinctly between the umbilicus and the epigastrium. On again applying the stethoscope, after a short interval, I could not hear the sound in this spot, and not till after a long search I found it in the left iliac region. In a few minutes after I could not find it here, and all that I could discover was a very indistinct sound, as if the heart was under the stethoscope, but at a distance from it.

I will not trespass upon your time and patience by a lengthened detail of all the circumstances, or points of inquiry, in which auscultation will afford us valuable aid in reputed cases of pregnancy, or of the various complications which may obscure even this mode of diagnosis. These few hasty observations aim at nothing more than the calling your attention to a most important subject, and the writer anticipates the deriving to himself of much more information from the discussion of this paper than he can pretend to give.

I must, however, be allowed to mention some few more of the circumstances under which the stethoscope affords us important assistance. A woman comes to us in the latter period of pregnancy, stating that she had, in every respect, been going on well, but that a short time previous to our seeing her she had missed the movements of the child, and she is anxious to be certified as to its being alive or not. If, now, we find by the stethoscope a distinct placental souffle somewhat shorter and more abrupt than natural, but cannot discover the pulsations of the fetal heart, we may be pretty certain that the child is not alive. This evidence is particularly valuable in those cases of difficult labour where it becomes a question whether we shall use the perforator or not. If we are satisfied that the child is not alive, we, of course, shall feel no hesitation in doing whatever may be necessary for the safety of the mother much earlier than we should be justified in doing if the fœtus were living.

Another example of difficult diagnosis occurs sometimes in ovarian enlargement. In this case of very slow progress, the ordinary symptoms of pregnancy are not unfrequently present, and our treatment must depend in great measure upon our view of the nature of the case. It may be said

that there is no harm in waiting for a few months, when the truth will be manifest; but granting this, it is well to have a means of deciding the point immediately. It is said that an ovarian dropsy begins on one side; this is ordinarily true, but suppose, what happened in a case I lately saw, the ovarian tumor commenced and progressed with a former pregnancy. By the time that birth was given to that child, the ovary was so large as, after the labour, to occupy the middle of the abdomen; this historical sign, therefore, fails us in such a case. Here, therefore, the stethoscope enables us to unravel the question whether it is dropsy or pregnancy, or both together.

A patient came to me a short time since, having many of the signs of pregnancy. She had a family before, and was now sick in the morning, and several other signs, which induced her to believe that she was pregnant; and among others, the sensation of something, to use her own expression, alive in her, which she attributed to the movements of the child. The stethoscope, however, dissipated the illusion by the discovery of a small pulsating tumor, having the character of an aneurism, in the situation of the superior mesenteric artery.

But the most important case in which this means of diagnosis is likely to afford us assistance, is in those cases of reputed pregnancy, in which this state is pleaded in arrest of judgment, after capital convictions. On this difficult and interesting question, I have much pleasure in referring you again to Dr. Kennedy's little volume, where you will find several examples of the successful application of the stethoscope to the detection of imposture, and the vindication of the truth. I must, before concluding, allude to one more means of detecting pregnancy, which has of late occupied the attention of the profession; I allude to the kiestein. I have stated that the stethoscope will detect the pulsation of the fetal heart till between the fourth and the fifth month; and that the placental souffle was to be heard a few weeks earlier than the former symptom. But it is sometimes desirable to be able to decide the question of pregnancy at an earlier period, and this several observers think they have the means of doing in the kiestein. It is found that the urine of pregnant women exhibits a thin pellicle on its surface, after standing for two or three days, which is found under the microscope to be crystalline. This pellicle, if allowed to remain for five or six days, sinks in broken pieces to the bottom of the vessel. Dr. Bird has lately given some interesting observations on this subject, in the Guy's Hospital reports for April 1840. These crystals, which are in the form of triangular prisms, are said to be that part of the secretion of the breasts which, during gestation, is absorbed into the circulation, and carried off by the urine. It seems to be satisfactorily proved that the urine of pregnant women, even as early as the second month of gestation, does afford this product, and we have, therefore, in this, a strong corroborative evidence of pregnancy. But to give this sign any positive value, we ought to know that this crystalline product is not met with in any other cases than of pregnancy. I will not detain you with the detail of my own inquiries on this subject. I will only say, that though in every case of pregnancy I have found the kiestein even as early as two months,

yet from the experiments in numerous instances of disease, I find in some other cases besides pregnancy crystalline products, which, though not exactly similar to the kiestein, yet so nearly resemble it, that I fear a further investigation of this subject will not prove this sign to possess the value of our *experimentum crucis*, in deciding the question of pregnancy. It is, however, a subject of too much importance to be lightly dismissed, and well deserves the full investigation which I doubt not it will receive from scientific men.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, AUGUST 7, 1841.

THERE are few subjects which should interest the best feelings of our nature, more than the condition of the sufferer under insanity. The utterly dependent state of these unfortunate beings upon the good offices of others, the restraints to which they are necessarily subjected in being removed from their homes and families, and placed under the supervision of strangers, the melancholy and even despairing turn which the disorder often takes, render them objects of the deepest compassion; and the individual, if such there be, who would subject them to the endurance of one pang, corporeal or mental, more than is absolutely necessary for their restoration to health, or for their preservation from doing injury to themselves or others, is something less than man, and worse than brute. Nevertheless, the treatment formerly experienced by the insane in many of the dens in which they were immured, was equally repulsive to every feeling of humanity, and disgraceful to the society from which they were outcasts. The measures of severity to which, ever since the time when the illustrious Pinel first caused their manacles and fetters to be struck off, they have been unnecessarily subjected, have been inflicted, we would fain hope, rather through mistaken notions, than from inconsiderate neglect, or any worse motive; but we cannot but look upon the attempts at a still further amelioration of their condition now making at Lincoln, Hanwell, and elsewhere, with the deepest anxiety, and we trust that no consideration connected with a miserable economy will be allowed to interfere with the execution of the humane intentions, and the carrying out to the full of the philanthropic views of the enlightened superintendents of the institutions referred to. Even at the best, with every kindness with which

the most unwearied benevolence and patient endurance, can alleviate the distresses and sufferings of the insane, their external state must be one of deprivation and restraint, and their internal consciousness of this but too often fretted with a sense of imaginary wrong, more intolerable to a generous spirit, than the infliction of the most severe calamity could possibly produce. How important then does it seem, that we should be instructed in everything relating to the condition of the insane, and that accurate information in all that concerns their situation and management should be made public? Publicity in the general statements is quite compatible with the utmost privacy of the individual, and becomes equally necessary as a measure for the security of the sound in mind, as well as for the benefit of the insane.

From the returns obtained from the Hanwell Asylum, Bethlem Hospital, St. Luke's, and some other public and private institutions, a most admirable and instructive report has been drawn up by Mr. Farr, and laid before the Statistical Society of London. Considering that at one time the opinion was maintained, and indeed has been recently acted upon in our courts of judicature, that insanity, so far from being a fatal disease, had a tendency even to prolong the duration of life, it will be matter of surprise to those who have not before examined the subject, to learn the high ratio of mortality in this class of affections. At Hanwell, it appears that 56 per cent., or more than half the patients admitted, have died in the course of little more than nine years from the opening of the institution, while the annual mortality has amounted to 12 per cent. This also is not very different from the rate of mortality among the private patients in thirty-four licensed houses, included in the report of Mr. Farr, in which the deaths of the lunatics amounted to 11 per cent. But the returns of the pauper patients in these institutions show a much greater annual mortality, the rate being, in patients of this class treated in the private asylums, as high as 21 per cent., or double the mortality of the other patients, and nearly double that of the same class of patients at Hanwell, in which, as an establishment supported at the public expense, the patients consist only of paupers.

It should be borne in mind, in estimating the influence of insanity upon the duration of life, that these returns contain a large proportion of persons of advanced age; but as the average of the ages of lunatics in asylums is between thirty-five and forty, it will at once be seen that the mortality in these institutions is excessive. "We have no means," says Mr. Farr, "of ascertaining the mor-

ality of lunatics at large; but the mortality of lunatics in asylums is much higher than the mortality of the general population, and the excess cannot be ascribed entirely, although it may partially, to the confinement, the unwholesomeness, or the usages of mad-houses. The mean age of lunatics in asylums is about 35—40. The average age of the patients admitted at Bethlem, (1830—34,) was 36 years; (36·2;) and the mean age of 213 admitted at Hanwell, by Dr. Conolly, was 36½. The mortality at the age 30—40 is 1·2, and at 40—50 is 1·5 per cent. in England and Wales. In cities, the mortality, at a corresponding age, is not more than 2 per cent. annually. Now the annual mortality at Bethlem, where dangerous cases are carefully excluded, was 9 per cent. in 1827—39. At Gloucester, one of the county asylums, at which the treatment is the most successful, the diet is generous and nutritious, and the patients live as much as possible in the open air, the annual mortality is 7 per cent. The annual mortality of severe cases of insanity cannot, I think, in favourable circumstances, be less than 6 per cent.; so that the mortality is three times greater among lunatics, than among the general population at the same age. We have seen, however, that the annual mortality among the better class of patients in the licensed houses was 11 per cent.; among paupers at Hanwell, 12 per cent.; among paupers in licensed houses, 21 per cent.; and among pauper men at one licensed house, 27 per cent.; as high as the rate of mortality experienced by the British troops upon the western coast of Africa, and by the population of London when the plague rendered its habitations desolate.”

At Hanwell it would seem that the mortality is materially increased by the disgraceful practice which exists of sending in numbers of patients to the asylum, as it appears, for no other purpose than to die. This practice no doubt prevails in respect to many other institutions; but even in Bethlem Hospital, where cases of this hopeless description are excluded, and in St. Luke's, the annual mortality, among the class denominated curables, was as high as 11 per cent., or pretty nearly the same as at Hanwell, where the mortality of patients belonging to this class appears to be about 12 per cent.

Insanity is more fatal in its acute than in its chronic forms, and a majority of the patients received into the Middlesex Asylum come in before the disease has passed the point at which the mortality declines. “At Hanwell,” says Mr. Farr, “18 in 100 living, die annually in the first year and a half; and 8 in 100 annually, for 6 years afterwards. If an asylum, therefore, contained

none but persons in the first year and a half of the disease, (after admission is always understood,) the mortality would be 18 per cent.; while it would be 8 per cent. in an asylum for chronic cases, between 1½ and 7½ years.” The rate of recovery, again, is, like the rate of mortality, greatest in the earlier stages and more acute forms of the disease; hence, “without implying any disparagement to the treatment in the former case, the rate of recovery in the two asylums would differ in a still greater degree, as it would be 19 per cent. in the first asylum, and only 3 per cent. in the second, set apart for the exclusive reception of the advanced cases. This separation seldom takes place in practice. The chronic and acute cases are always mixed in an institution like Hanwell; but it is evident, that in the first years after it was opened, the proportion of cases in the earlier stages must have been greatest, and the proportion of lunatics in advanced periods of the disease must have since progressively increased. According to the above laws, the proportion of deaths and recoveries should gradually have declined, and this was the fact.

The following table affords a clear illustration of the statement here made.

Periods of three years.	Lunatics existing one year.	Died.	Recovered.	Annually out of 100 living.	
				Died.	Recovered.
1831-3	1,147	197	165	17·2	14·4
1834-6	1,754	194	119	11·1	6·8
1837-9	2,121	215	168	10·1	7·9

That is, the annual mortality was reduced from 17 per cent. to 10 per cent.; and the annual rate of recovery from 14 per cent. to 8 per cent. But in the licensed houses, which have been many years in existence, the annual rate of mortality was 13·6 per cent. in 1833-36, and 17·2 per cent. in 1836-39,—an increase instead of a diminution; and in contravention of the principle laid down by Mr. Farr, and confirmed by the results afforded by the returns of public institutions.

The causes of this difference call for investigation. Sex, age, and circumstances of disease, may be presumed to be the same in both instances, and the high mortality, as it has already been shown, occurs especially among the pauper patients of the private asylums; the condition of the patients is also similar. Other causes to which the excessive mortality among paupers received into large licensed houses may be attributed, are limited space; crowding of the patients; impurity of the air; deficient or otherwise improper diet; want of general comforts, warmth, exercise, and fitting occupation; and defective medical attendance.

At present we are unable to pursue this subject

farther, and must rest satisfied with having briefly indicated the general fact of the high ratio of mortality of insanity, and especially among pauper patients treated in, or perhaps we should say, received into, certain private asylums. We purpose, upon some future occasion, to resume the subject, and shall then endeavour to point out other circumstances in the general condition and mode of management of the insane, which require careful investigation.

THE subject of intramural sepulture has at length been taken up by the Common Council of the City of London, and we trust sincerely that the question will not be abandoned until some measures be devised for allowing the dead "to rest in peace." The evil effects produced by the interment of large numbers of bodies in contracted spaces have been abundantly proved by Mr. Walker, in his popular work, entitled "Gatherings from Grave-yards;" but, independently of the physical evils attendant on the practice, common decency, and the respect due to the departed, require that some place of interment should be provided, where the dead may remain undisturbed. Within the precincts of London no such place can exist.

REVIEW.

An Essay on the Chemical, Botanical, Physical, and Parturient Properties of the Secale Cornutum.
By J. H. WARDLEWORTH. Simpkin and Co., London, 1840, pp. 69.

MR. WARDLEWORTH must, we suspect, be slightly tinged with the "cacoethes," to adopt so hackneyed a subject as the ergot of rye for an essay. He has, however, applied himself manfully to the task, and contrived to reproduce faithfully a number of common-place truisms, without adding a single fact to the store of our knowledge, or throwing light upon a single doubtful point connected with the administration or mode of action of the ergot of rye. Mr. Wardleworth would make an excellent correspondent for the "leading medical journal" of the day, the pages of which have been latterly filled with specimens of the most profound twaddle. We would, therefore, take the liberty of recommending him to resume his labours in the "Lancet," and to give up book-making.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, July 6, 1841.

Dr. WILLIAMS, President.

TWO CASES OF DISLOCATION OF THE TENDON OF THE LONG HEAD OF THE BICEPS HUMERI FROM ITS GROOVE. BY JOHN SODES, ESQ. JUN., OF BATH. COMMUNICATED BY MR. PARTRIDGE.

THE first case is that of a man of advanced years, who injured his right shoulder by falling upon his elbow: six months afterwards he sustained a second accident, a compound fracture of the skull, of which he died; and an opportunity was thereby afforded for examining the nature of the first injury. The symptoms of the injury of the shoulder were always obscure, on account of an alteration in the relative positions of the bones of the joints, which did not, apparently, depend upon fracture, and could not be considered to amount to a partial dislocation, to which, however, it appeared to be more closely allied than to any other known injury.

The joint was flattened at the posterior and outer parts, and the head of the humerus was unduly prominent in front, and closely drawn up in contact with the under surface of the acromion, grating against it on motion, and becoming locked with it by the upper edge of the greater tubercle striking against that of the acromion on abduction of the arm.

The underhand motions were not much interfered with, except that the patient had no power to raise any object from the ground, on account of the severe pain induced by exercise of the biceps muscle. On examining the joint, the accident was found to be a dislocation of the tendon of the biceps from its groove, unaccompanied by any injury.

The joint exhibited extensive traces of general inflammation, and the capsule was thickened and contracted.

The author infers that the altered condition of the bones was dependent on the displacement of the tendon, and he explains its influence in the following manner.

The head of the humerus being placed on an almost flat surface, and not inclosed in a bony cavity, is subject to the control of the capsular muscles which invest it on three sides. These muscles may be said to arise from the upper three-fourths of the circumference of a circle, to the centre of which, represented by the head of the humerus, they converge.

To enable the bone to maintain its equilibrium, it is necessary that the capsular muscles should exactly balance each other; and as there is no muscle from the ribs to the humerus to antagonise the upper capsular muscles, it is suggested that this office is performed by the singular course of the long tendon of the biceps, which, by passing over the head of the bone when the muscle is put in action, tends to throw the head downwards and backwards. It follows, therefore, that the tendon being removed, the head of the bone would rise upwards and forwards.

Allusion is then made to the frequency with which injury of the tendon is involved in accidents to the shoulder-joint. A paper by Mr. Gregory

Smith, in the fourteenth volume of the "Medical Gazette," on the "Pathological Appearances in Seven Cases of Injury to the Shoulder," is quoted, to show that in all those instances which were accidentally met with in the dissecting-room, and are consequently without histories attached, the tendon was either ruptured or displaced, and the same altered condition of the bones, as in the present case, was noticed in some of them.

The subject of partial dislocations of the humerus is next considered with reference to the probability of an injury to this tendon being involved in the production of that accident. Only three dissections of partial dislocations are on record; they are to be found in a paper by Mr. Hargrave, in the "Edinburgh Medical and Surgical Journal." One fell under the observation of Mr. Hargrave himself; and the others he quotes from Sir Astley Cooper's large work, and from Dupuytren's "Leçons Orales." In Mr. Hargrave's case the tendon was ruptured; in Sir A. Cooper's case it had been, but had become subsequently reunited, and in Dupuytren's its condition is not mentioned.

The second case is that of a man who, among many other injuries, sustained a dislocation forwards of the humerus. Great difficulty was experienced in the reduction; and after death, for the man only lived a few days, the joint was examined; it was found that the tendon was dislocated, and that it had passed completely over the head of the bone on its inner side, and was lying at the back of the joint. The author attributes the difficulty of the reduction to this complication with the displacement of the bone.

AN ACCOUNT OF TWO CASES OF ANEURISMS OF THE TRUNK OF THE SUPERIOR MESENTERIC ARTERY; IN ONE OF WHICH JAUNDICE WAS INDUCED BY PRESSURE OF THE SAC. BY JAMES ARTHUR WILSON, M.D., PHYSICIAN TO ST. GEORGE'S HOSPITAL.

The symptoms which had most attracted attention during life in the first of these cases, had been very severe pain between the shoulders along the track of the sixth or eighth dorsal vertebræ. The patient died, after an illness of about six months, in a state of great exhaustion, much aggravated by mercurial salivation.

On examination of the body, a large tumor was seen extending from behind the head of the pancreas upwards, forwards, and outwards to the right side. The ductus communis was in close contact with this sac, but was, however, pervious to a probe. The pori bilarii of the liver were universally much enlarged. The heart was small; the membrane lining its cavities uniformly yellow. Tubercles of a consistence like mortar, and of a yellow colour, were observed in the lungs. In the head, the dura mater was unusually yellow; but both tunica arachnoidea and pia mater were free from that colour. The substance of the brain was also normal in colour; but a thin yellow fluid could be pressed from the divided surfaces of many of the vessels. The synovial fluids contained in the cavities of joints was yellow; their cartilages were of the normal colour. The stomach contained thick yellow mucus.

The author observes, that this case may lead us, under similar circumstances, to apply the ear to the upper part of the abdomen, as a means of in-

quiry; it may also prevent our being taken by surprise, in the event of sudden death: he also remarks on the inefficiency of the mercurial treatment adopted.

In the other case noticed by Dr. Wilson, there was a tumor pulsating in the epigastric region, about the size of a small orange, which, when the patient lay flat, projected to the left of the scrobiculus cordis. When the patient turned to the left side, the tumor ceased to be perceptible. On his turning, to the right, it might again be observed.

Between February 11th, when he was admitted, and July 12th, when he died, he was attacked with frequent hæmoptysis; and towards the last, symptoms of phthisis presented themselves. In the course of this illness there was severe and increasing pain down the dorsal vertebræ, and cramp in the legs; and the tumor became more and more tender to the touch. The aneurism in this case was in the trunk of the superior mesenteric; it was large and kidney-shaped, raising up with it the pancreas, which lay at the upper extremity of the tumor.

The author notices, as distinguishing points in these two cases of aneurism of the superior mesenteric artery, that jaundice was, during life, a symptom of the one, hæmoptysis of the other. In the latter case the lungs, he observes, were extensively diseased by tubercles of the common kind.

CASE OF FATAL PERITONITIS BY EFFUSION OF BILE INTO THE PERITONEAL CAVITY, THROUGH AN ULCERATED OPENING IN THE GALL-BLADDER. BY WILLIAM BELL, M.D.

This case is viewed by the author as one of rare occurrence: the inflammation which precedes ulceration of the gall-bladder, tending to adhesion of the adjacent viscera with its coats. The facts disclosed by dissection were as follow:—

Effusion of a cinnamon-coloured fluid among the small intestines: convolutions of the bowels glued together by coagulable lymph. The peritoneum investing the convolutions of the small intestines, presenting on their anterior aspect a well-defined, bright-red stripe.

Marks of recent inflammation of the caput coli, and of the peritoneum lining the abdominal parietes; liver not morbid; gall-bladder containing two concretions, and perforated on the side next the stomach by an ulcer of sufficient size to admit a crow-quill.

The duration of the attack of peritonitis was sixty-three hours: its symptoms were not unusual or extraordinary. They were treated first by remedies intended to subdue presumed irritation; these quieted irritability of stomach, but did not relieve the pain. Then leeches, fomentations, and the other remedies, indicated by presumed inflammation, were used. Little relief seems to have been attained until an opiate enema was thrown up. All pain then ceased, and the patient continued comfortable, and apparently in a favourable state, for some hours. The pulse now became contracted, quick, and feeble, without, however, any return of pain: the skin became hot and dry, and the patient gradually sank till she expired.

The society adjourned until the second Tuesday in November next.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

(Concluded from p. 357.)

REPORT OF THE POOR-LAW COMMITTEE, 1840.

(Published by order of the Council.)

§ 54. The recommendations of the medical witnesses, with regard to the extent and population of districts, have next to be examined.

It was suggested, with a view to diminish the size of the medical districts, that *separate parochial appointments** should be adopted; by means of which the circumstances of each parish would receive closer attention, and the poor would be brought nearer to the residences of the medical officers. It was also proposed that all the medical practitioners, who reside in or near the union, and who are desirous of the appointment, should, if possible, be engaged to attend the poor. (14968)

By these expedients, the district *system* would be abolished, (15033) although a district would, in fact, still remain, in the sense of several distinct parishes entrusted to the care of one medical officer, which parishes should of course be adjacent and conveniently arranged.

While the medical witnesses suggested parochial appointments, they by no means intended to propose that each surgeon should attend only one parish. Such a proposition would have been absurd, for in rural districts the parishes, for the most part, outnumber the duly qualified medical candidates.

The mere diminution of the size of districts, irrespective of the distance and requirements of each parish, would not entirely obviate the evils complained of: and therefore, any scale proposed for limiting the area and population of districts, without reference to parochial divisions, might be found an insufficient amendment.

These considerations point out two methods of checking the appointment of surgeons to distant parishes:—1st, by a fixed rate of mileage, (as before suggested,) to be added to the salary for the permanent paupers, as well as to the payment for extra cases. And, 2ndly, by limiting the number of parochial appointments, to be held by any individual, according to their total area and population. (15030)

Neither of these methods, singly, would, we think, secure the end in view. The first would, probably, be the most effectual; but with respect to the second, several important suggestions were offered. From the returns it was shown that the average area of medical districts was twenty-one and a half square miles, and the average population 5,000. The medical witnesses, accordingly, recommended a reduction of area to about one-half, viz. to eleven or twelve square miles. (15124 and 15004) It should be recollected that this area was proposed merely as the *average*; for the nature of the locality, in some parts of England and Wales, would quite forbid the imposition of twelve or even twenty square miles, as the maximum. Limits to population were also suggested; 2,000 or 3,000 as the average in rural districts; (15172, 15003,) 5,000, if within three miles; (15451) and 10,000 as the maximum in large towns. (15825)

Sir A. Cooper was of opinion, (16050) that the districts should not on the average exceed five miles in diameter, (equivalent to about sixteen

* Vide § 28.

square miles,) which was approved of by Dr. Kay, as being about the size of the districts in Suffolk. (16072)

On a review of the evidence, your committee are disposed to recommend a concurrent limitation of population and area; the amount of the former varying in inverse proportion to the extent of the latter. For this purpose, a scale might be readily constructed, but its adaptation to particular localities should be decided by the proposed medical referee or guardian, in conjunction with the board of guardians.

§ 55. Your committee now turn to the evidence relating to the qualification of medical officers.

The mere legal qualification to practice has been all that the poor-law commissioners have thought it necessary to require of candidates for union appointments.

Such qualification, in the case of an apothecary, is the licence of the apothecaries' society, or else proof of practice prior to 1815. Either a degree in medicine, or a diploma of the College of Surgeons, without the apothecaries' licence, was, however, considered by the commissioners to render the possessor eligible, so long as he did not dispense his own medicines.* (5067.) Dr. Kay believed that not a single practitioner held office in his district without a legal qualification. This must have been an exception to the general rule, for, by a return to the House of Commons, published as an appendix to the third report of the poor-law commissioners, "it appears that twenty-seven medical officers attending the poor were practising illegally, that is, without any diploma or licence; five returned no answer as to qualification; three hundred and sixteen were apothecaries only, *not* surgeons, and consequently had not been examined in surgery; two hundred and one were legalized (not qualified) by the apothecaries' act; that is, were never examined at all; and three hundred and fifty-five were under five years' standing in the profession. These different classes formed *one-half* of all the parochial medical officers."†

The medical witnesses, therefore, insisted that candidates for union appointments ought to possess "the double legal qualification of surgeon and apothecary;"‡ and that, since the duties are "exceedingly important and require great experience," two or three years' standing in the profession should likewise be required. (15473—14976 and 15898.)

The opinions of Sir Astley Cooper and Dr. Marshall Hall on this point deserve the utmost attention. The first declared that "no man should be permitted to practise his profession, or be appointed to a situation of this kind, unless he has passed the ordeal of the Apothecaries' Hall, unless he has the diploma of the Royal College of Surgeons, and unless he has undergone an examination before a midwifery board;—these three

* With regard to the penal consequences of any infringement of the Apothecaries' Act, the poor-law commissioners displayed singular indifference. "How far," said they, "a member of either of these branches of the profession, (a physician or mere surgeon,) would render himself liable to penalties, by acting as a medical officer in a union, is a question of law which we felt it no part of our business to determine."—First Annual Report.

Mr. Power was evidently in entire ignorance of the nature of legal qualification; nor was he aware that the public possess no real protection against unqualified practitioners. (4318 et seq.)

† Communications from Brit. Med. Ass. to P. L. Commissioners, 1839.

‡ "It is absurd to appoint a mere surgeon to perform duties, the majority of which are medical, (15473.)

things are absolutely essential." (16030.) The latter urged that "no student fresh from the schools ought to be appointed; (16023)—after his examinations he should be two years in the profession, two years in actual practice." (16077) It is important that he should be acquainted with the locality, and his character known to the inhabitants;—this would involve the necessity of residence for one of the two years. (15978)

It is, however, but fair to quote Dr. Elliotson with respect to the latter suggestion. "I doubt whether he would be more fit in two years, if he had *not* a good opportunity of improving himself by practice, than at the beginning; because he would have so little private practice in the first two years, that he would not much improve himself by it; and at the same time, he might have forgotten a great deal that he knew when he came from his examination;—a man must learn his profession by experience, as well as by education at the schools." (15669)

Your committee would here observe, that Dr. E. merely supposes a case in which the candidate "*had not had a good opportunity* of improving himself by practice." We contend that every young practitioner ought to have such an "*opportunity*" before undertaking any public office, in which he is to bear the whole responsibility; and that he should not commence by practising on paupers, who have not the option where to obtain advice. Appointments in public institutions, under the superintendence of the chief medical officers, and situations as "*assistant*" in private practice, are well adapted to supply the necessary experience, and to give the candidate a higher practical qualification than any diploma or license alone could confer.

Sir A. Cooper's recommendation most certainly deserves adoption. No valid reason has been, nor can be, assigned for withholding from paupers a class of medical attendants equal in every respect to that which the law has provided for prisoners and felons.

§ 56. Your committee proceed to consider the suggestions relating to the choice of parochial medical officers. On this subject, two important alterations were proposed to the parliamentary committee:—First, that the rate-payers should have the right of electing the medical attendant for each parish. Secondly, that each sick pauper should have the right of selecting his own medical attendant.

Those members of your committee who were examined,* recommended that the power of appointment should be restored to the rate-payers, as being more directly interested in the welfare of the poor inhabitants of the parish, and "better acquainted with the character and capabilities of the medical men" residing near it, than a board of guardians acting for an extensive union. (14015)

And although there may be some guardians in every board equally competent to decide, and equally desirous that the fittest persons should be appointed to the parishes they represent,—yet they are liable to be outvoted by others totally unacquainted with the peculiar wants and circumstances of such parishes. (15926)

A larger body of electors, like the rate-payers, would also be less likely to be influenced by the

motives of private interest and personal favour, which too frequently bias the guardians in their medical appointments.

The rate-payers, especially the "*principal inhabitants of a parish*," (15925) would doubtless be guided in their selection by the reputation for skill and humanity which the medical candidate had acquired in the parish.

It was not, however, proposed to revert to the old system; the medical officer should neither be the nominee of an overseer, (14814) nor of a select vestry, (15924) but he should be the choice of the rate-payers, whose suffrages might be obtained by voting papers, as in the election of guardians; (14815) and since his remuneration, extent of duty, and qualification, would be (as proposed) subject to previous regulation, there would be no liability to an erroneous decision.

The second method of selection was advocated by two of the committee, Mr. Liddell and Mr. Wakley. (15006 et seq.) These honourable members did not, however, suggest that an unrestricted choice should be allowed to the poor, but that the board of guardians should name practitioners from whom the poor might select their attendants; or that "*payment should be withheld, provided they applied to persons not properly qualified*." (15018)

By such a mode, it was hoped that the pauper might be made to "*stand in the place of a private patient*;" (15012) that he might thus secure earlier attention; and that his recovery might be accelerated by the confidence he would repose in a medical attendant of his own selecting.

The following objections to both these propositions were urged: that as the whole management of parish affairs was committed by law to the boards of guardians, it was their duty to provide adequate medical assistance for the paupers of every parish; (15006) that the medical officers should be responsible to the constituted authorities for the proper performance of their duties, which they could scarcely be if selected by the paupers, or appointed by the rate-payers; and that, if the poor had the right to choose their attendants, several practitioners might be employed in the same parish, and thus the amount of medical exertion would be greatly increased, without a corresponding increase of remuneration.

For these reasons, the parliamentary committee objected to the proposed alterations, and expressed a hope "*that the same considerations which govern private individuals in the selection of medical attendants for themselves and families, will influence boards of guardians in selecting attendants for the poor; the same individuals, in the great majority of instances, will attend the poor in common with the other inhabitants of the district; and in this respect no class of the population will be exposed to any comparative disadvantage*."

Having thus stated the principal arguments affecting the question of appointment, we leave the subject to the vigilant consideration of the profession.

If the boards of guardians continue their present system of injustice and oppression, there can be little doubt that the advocates of a different method of election will become more numerous, more importunate, and perhaps, at last, irresistible.

§ 57. The last important suggestions which your

* Mr. Farr also appeared to lean to election by the rate-payers. (51825.)

committees have to notice in the medical evidence, refer to the regulation and superintendence of the duties of the medical officers.

We have already pointed out the imperfect and objectionable character of the commissioners' arrangements for this purpose, and have indicated the necessity which exists for professional supervision.

The additional functionaries which were suggested for the purpose of determining the precise rate of remuneration, and the size of the districts in each union, would also, in the opinion of the medical witnesses, supply the means for effective superintendence.

The medical commissioner or director, to whom it was proposed to refer all appeals on the former topics, would likewise be the most suitable authority to regulate the performance of medical duty—examine into any complaints of malpractice—test, if necessary, the qualifications of candidates—direct the diet of workhouses—superintend the supply of medicines—receive and analyse the annual reports of sickness, mortality, and medical attendance, which should be forwarded to him from every union, and assist the poor-law commissioners in all questions requiring a medical opinion.

It was proposed that the medical commissioner should be appointed by the crown, "having authority under the poor-law commissioners in the matter of medical relief;" that, in fact, he should hold the same position at Somerset House, as the Director-General of the Army Medical Department at the "Horse Guards," or the Physician-General of the Navy at the Admiralty. (15080)

It would be necessary for such medical authority to have a sort of deputy in every union, which would be secured by the appointment of the proposed medical assessor, who "should act as the principal medical officer in the union, and should sit at the board of guardians as a referee in all cases which require a medical opinion; that the reports of the various medical men in the union should be made through him; that he should be the channel of communication between them and the board, and also between them and the superior medical commissioner." (15002) "He should also draw up an annual sanatory report of the state of the pauper population of the district;" (15830) and "would point out to the guardians any circumstances calculated to ameliorate the physical condition of the poor." (15832) He should receive a *small* annual remuneration, though at the same time his appointment, proceeding from the practitioners of the union, would be regarded as an honour, and as such, aspired to. (15833.)

Such an organisation of the whole medical department of the poor-law, (which "cannot be properly conducted without medical knowledge and medical control,")—(14467) could not but confer the most essential benefits on the poor and on the community at large.

§ 58. Members of our profession, in undertaking union appointments, are placed in very peculiar circumstances, arising out of,—first, the inseparable connexion of private and parochial practice, and the impossibility of disturbing the one, without interfering with the other:—secondly, the low remuneration which must always, even under an improved system, attach to union

services, (not more than one-fourth of the customary charges,) so that the duties must, to a certain extent, be *unrequited*; and thirdly, the amount of gratuitous advice which will ever be claimed by poor persons *not* dependent on the rates.

These considerations justify medical men in claiming a totally different position from that of other officers of the union.

The parliamentary committee, as might have been expected, "were not disposed to concur in the suggestions which have been made for the appointment of a medical commissioner by the crown, and of medical assessors by boards of guardians and the resident medical practitioners;" but they signified their entire assent to the recommendation, "that periodical reports to the boards of guardians, as to the state of health prevalent in the medical districts, should be required from the medical officers," and considered "it desirable that great care should be exercised in requiring that the accounts of the diseases, and treatment of the individuals attended, should be accurately kept, and in subjecting these accounts to revision, as one means of security that the sick are carefully attended and correctly treated."

How could that desideratum be secured, except by entrusting the "revision" to competent medical authorities?

It is not surprising that Dr. Kay, on his final examination, should have objected to propositions, the effect of which would be to control and modify the administrative functions of the poor-law commissioners and guardians. He considered that if the recommendations, as to the size of districts and mode of remuneration, were to "pass into a general regulation, "to guide the conduct of the boards of guardians throughout the country, there would be little subject for dispute between them and the medical profession;" (16074) and, therefore, that the services of a medical assessor would not be required.

He was, however, of opinion that the other "very useful functions," proposed for the assessor, ought to be performed by some medical gentleman in every union.

He also thought that "if a question should arise whether the medical officer had rightly treated a patient, or if he were subject to charge of neglect, the board of guardians should have directions to obtain the services of some respectable physician, resident in the county where the union was situated, to assist them in their inquiries and deliberations on the case." (16074) He had, himself, more than once, recommended the adoption of this course in his district. (16077) He did not, therefore, see any necessity for appointing a medical commissioner; and was quite certain that if the poor-law commissioners were in any difficulty respecting the decision of a medical question, "they would immediately avail themselves of the advice of the highest medical authority."

Dr. Kay's recommendations deserve a candid consideration; but your committee agree with the honourable examiner in objecting to the employment of a local physician or surgeon, to decide in cases affecting the reputation of union medical officers. The private relations of such a gentleman with the profession in the neighbourhood, might greatly interfere with a satisfactory decision; and although we agree with Dr. Kay, that there is

"nothing more honourable to the profession than the apparently total subsidence of personal feelings and jealousies upon such occasions of arbitration," yet we are sure that the appointment of a medical commissioner responsible to the public, whose decision would be founded "on general principles," and who would be free from any suspicion of individual bias, would be more satisfactory, both to the profession, the local authorities, and the community. (16894)

§ 59. The closing remarks of the report of the parliamentary committee deserve grateful notice.

"Your committee," said they, "from a feeling of respect for the medical profession, and believing that their attendance on the poor has been marked by great liberality and humanity, are anxious that the suggestions which have been made by them should be favourably considered by those who are charged with the administration of the law. They recommend the evidence which they have received on this subject to the attention of the poor-law commissioners; and they cannot but hope that arrangements may be made to remove some of the objections reasonably entertained to the present practice, and to put this branch of relief on a footing which shall be satisfactory to the medical men, and be conducive to the comfort of the poor."

§ 60. In concluding this report, we are aware that only two of the four objects proposed at its commencement have been accomplished. We have taken a review of the circumstances which led to our appointment; we have carefully examined the evidence collected by the parliamentary committee, and have inquired into the more recent administration of medical relief in the unions brought under the notice of that committee; and we have now submitted to the Association the conclusions at which we have arrived, after deliberate consideration of the facts and recommendations thus presented to us.

It therefore remains for us, in another report, which we hope to present to the next anniversary meeting, to relate the measures which we have, on various occasions, recommended to the council, with a view to some legislative enactment; and to consider the present position of the question, altered, as it has been, by the appearance of the last report of the poor-law commissioners, (for 1840,) and still more recently by the operation of the Vaccination Extension Act.

ANALYSIS OF FOREIGN JOURNALS.

Annales d'Hygiène Publique, &c. July, 1841.

We can find room only for the titles of the articles contained in this number. They are—

1. *A memoir on milk, by T. A. Quevenne, head apothecary to the hospital of La Charité. A most interesting and able memoir.*
2. *On the admixture of the lathyrus cicera with bread, by M. Chevallier.*
3. *On the different signs of death from strangulation, by M. Ollivier (d'Angers.)*
4. *Medico-legal appreciation of the effects of concussion of the brain, by D. H. Bayard.*

Medicinisches Jahrbücher, &c., or medical an-

nual of the Austrian States; January to April, 1841.

The principal medical articles in the four numbers of this journal are—

1. *On atropia mesenterica in children, by Dr. J. Wagner.*
2. *On paracentesis of the chest and pericardium, by Dr. Schuh.*
3. *Case of congenital obliteration of the os tincae successfully treated, by Professor Von Waitman, (already noticed.)*
4. *Simple mode of operation in cases of fistula and abscess of the anus, by Professor Hauser.*
5. *Notice of the post-mortem examinations made at the general hospital of Vienna.*
6. *Observations on 206 cases of tape-worm, by Professor Waworuck. (We have already noticed this article.)*
7. *On inflammation as it occurs in children, by Dr. Wagner.*
8. *Diarrhæa during dentition, by the same author.*
9. *On puerperal convulsions, by Dr. Von Kwisch.*
10. *History of thoracic diseases which occurred in the general hospital, by Dr. Skoda.*
11. *Some remarks on the operation for strabismus, by Professor Fabini.*
12. *Essay on fungus medullaris, by Professor Hauser.*
13. *On nebulous spots of the eye, by Dr. Engel.*
14. *History of the plague in Rumelia, by Dr. Müller.*
15. *On the nature and treatment of club-foot, by Dr. Zöhrer.*
16. *Clinical report from the lying-in hospital of Prague, 1840, by Professor Jungmann.*

ON ATROPHIA MESENTERICA IN CHILDREN, BY DR. WAGNER.

The author considers, contrary to the opinion of many physicians, that atropia mesenterica is not a scrofulous disease, but an affection generally depending on disorder of the digestive functions, produced by bad food or derangement of the functions of the skin.

The earliest symptoms are vomiting, pains in the bowels and purging, with loss of sleep; and the usual symptoms soon follow these. In an early stage of the disease, proper attention to diet will often suffice to prevent its development, and the employment of tepid baths will be of great benefit. When the disease is further advanced, the author prefers rhubarb to any other remedial means. If there be no fever, we may give 15 to 20 drops of the tincture of rhubarb in the day to a child one year old, and if the abdominal glands remain very torpid, we may add two or three grains of muriate of ammonia. When the disease, as often happens, is complicated with inflammatory affections, we must avoid blood-letting, and combat the inflammation by soothing measures. Dr. Wagner has found alum of great benefit in the severe purging, to which young children labouring under this disease are subject.

ON PARACENTESIS OF THE THORAX AND PERICARDIUM. BY DR. SCHUH.

We have already noticed Dr. Schuh's case, in which the pericardium was successfully tapped.

During the year 1840, Dr. Schuh performed the operation of paracentesis thoracis forty-four times; eight patients were completely cured; in four the results were unfavourable; the remainder were more or less relieved.

The first question which the author examines, is the effect produced by the entrance of air through the wound; he thinks that a few bubbles may enter without any bad effect, but it is far different when a large column of air rushes in through the opening during deep inspiration; it then acts injuriously by increasing the pressure on the lungs, and by irritating the pleura. To prevent these bad effects, the author endeavoured, in his earlier operations, to close the end of the canula with the finger each time the patient inspired, but this was soon found to require too much attention and patience. After various unsuccessful attempts, Dr. Schuh and his colleague invented an apparatus which completely answered: this apparatus consists of a common trochar, a small cup, (*cuvette*), and a syringe. The trochar is of silver, with a calibre sufficiently large to allow the albuminous clots to pass through it. The cup should contain about half an inch cubed of fluid; at the lower part is a tube which passes into the canula, and the internal opening of this tube is furnished with a small leather valve; at the upper part of the cup there is a lip something wider than the tube. In operating, the trochar is passed in the usual manner, between the fifth and sixth ribs most commonly, or between the sixth and seventh, in a right line with the axilla, a little below the level of the mamma, and in front of the anterior edge of the latissimus dorsi. When the puncture has been made, the trochar is partly withdrawn, so as allow the canula to be closed by turning the button; this done, it is withdrawn completely. The cup is now fixed on, the button turned back, and the fluid begins to escape. If the fluid be clear, the valve plays during expiration and inspiration, but its escape may be prevented by the diaphragm or lung being impelled against the mouth of the canula. The ordinary obstacle, however, to the escape of the fluid is that produced by clots of albumen which close up the canula; when this occurs we must adapt the syringe to the canula, and endeavour to promote their expulsion, but care should always be taken to close the canula, by turning its button, whenever this is done. Should the syringe fail, the canula must be cleared by passing in a gum elastic bougie. As to the quantity of fluid which may be extracted with the aid of the syringe, it is difficult to lay down any general rule. When the disease has been of long standing, the patient much reduced, we should withdraw a small quantity only. Dr. Schuh has seen various examples of peritonitis, pneumonia, and pleurisy, excited by the evacuation of too much fluid at a time. Towards the end of the operation we must be careful of the lungs and heart, which might come into contact with the end of the canula, as the fluid is nearly all drawn off.

CASE OF PUNCTURE OF THE PERICARDIUM.
BY DR. SKODA.

On the 22nd of July, 1840, a young woman, twenty-four years of age, was transferred to the care of Dr. Skoda, from another division of the

hospital, in which she had been under treatment for fourteen days. The patient had been eight weeks ill, and for the last three weeks was unable to sleep, as she could only breathe in the erect posture; the face, hands, and feet were oedematous, and ascites also existed. On examining the chest, there were evident signs of effusion into the pleura and pericardium, and it was determined to puncture the latter. This was done on the 24th; a puncture was made on the left side of the sternum, between the third and fourth ribs, close to the edge of the breast-bone; this point was chosen, as affording less danger of wounding the heart, great vessels, or internal mammary artery. On introducing a probe, no doubt existed of its being in the cavity of the pericardium; a small quantity of bloody fluid escaped. After several attempts to evacuate more fluid, the canula was removed and again introduced lower down, between the fourth and fifth ribs: but little fluid escaped at first; half a pint of reddish serum afterwards came away, being driven out with some force at each systole of the heart. When the fluid ceased to flow on placing the patient in various postures, the canula was removed, although the sound on percussion was dull over a large surface of the heart.

The patient felt greatly relieved after the operation, was able to lie down with the head raised, and for the first time for three weeks had some sleep. On the following day the feet were evidently less oedematous; the shock of the heart could be slightly felt; its sounds were distinct, and there was no *bruit de frottement*. The patient improved daily in health and appearance. The condition of the chest, and the quantity of fluid in the pericardium, were carefully noted day by day. At the end of four weeks the whole of the fluid in both sides of the chest was absorbed, and the functions of the lungs were perfectly performed; the dull sound, however, showed that the pericardium was still dilated. The patient now seemed perfectly cured, her strength had returned, and her digestive organs had recovered their tone, when, without any apparent cause, she was attacked with some pain about the upper end of the sternum and the neck. In a few days the cervical glands began to enlarge, and an elastic tumor was formed over the upper part of the sternum, appearing to arise from the periosteum; the skin covering it was somewhat red, but not otherwise changed. Various means were tried, but without avail, to dissipate this tumor; a puncture was then made into it, but no fluid escaped; the wound healed readily. It gradually extended, and involved the whole sternum and part of the ribs. With the exception of occasional pain, the patient remained quite well up to the middle of November; she was able to go about, slept tranquilly, and had a healthy complexion. Towards the middle of November the tumor extended upwards, and pressing on the trachea, produced some difficulty of breathing, with cough and vomiting. After this the patient could swallow nothing but a little soup; the difficulty of swallowing gradually increased, and she sank on the 6th of January, 1841, five months after the operation.

• *Post-mortem appearances.*

On dividing the tumor, it was found to consist of a grayish-yellow mass enveloping the sternum,

costal cartilages, and anterior edges of the first four ribs, and the sternal end of the clavicle; the substance of the bones appeared here and there, throughout it, in the form of layers. It filled the whole of the anterior mediastinum, and pressed on the trachea and aorta. Both lungs were adherent, nearly through their whole extent, to the walls of the chest, infiltrated with serum, and with numerous points of medullary fungus. The pleura and the external surface of the pericardium were spotted with the same substance; the heart was closely adherent to the pericardium by the medium of coagulable lymph; it was of the normal size, but pushed backwards, and to the left side, by the tumor; the walls of the right auricle were completely converted into medullary fungus, and those of the ventricles were infiltrated with it; the endocardium was likewise thickened by deposit of the same matter, and also the valves. The peritoneum, liver, and stomach, contained more or less of the fungoid substance.

REMARKS.—In the present case, the first puncture failed to evacuate any fluid, because the point of the trochar fell on the mass of fungus in the mediastinum; it was here that the disease originally commenced; the effusion into the pleura and pericardium was probably occasioned by some inflammatory action, which accompanied the deposit of the fungus. There certainly was more fluid in the pericardium than was evacuated by the puncture, but it was rapidly absorbed after the operation.

REVACCINATIONS IN THE PRUSSIAN ARMY. 1840.

Of 43,522 soldiers who were vaccinated, 34,573 presented very distinct and well-marked cicatrices; 6,177 imperfect cicatrices; 2,772 no marks of cicatrix. The vesicle went through a regular course in 20,952; irregular in 8,820, and the revaccination produced no result in 13,750; the operation was repeated a second time on the latter, in 2,831 with success, in 8,958 unsuccessfully. Of the numbers revaccinated during 1839-40, seven had varicella, two varioloid, and one true small-pox.

During the year 1840, there were only 74 cases of variolous eruption in the whole of the Prussian army, and of these, 46 were cases of varicella, twenty-one of varioloid, and seven of true small-pox; of the latter, two died, and they had not been revaccinated. It is worthy of remark, that these different examples of eruption occurred in recruits immediately after they had joined their corps, and before the revaccinations had been commenced.

The vaccine virus taken from adults who had been revaccinated with success, was found to be as efficacious as that taken from infants. The whole of the fourth division of the army had been revaccinated with this virus taken from adults, yet not a single case of variola occurred in it during a period of three years, although the division had been quartered in localities where small-pox prevailed.

REVACCINATIONS IN THE WURTEMBERG ARMY.

During a period of seven years, there were only

20 cases of varioloid and two of variola (one died) in the Würtemberg army. Of the 22 attacked, two only had been revaccinated some years before, and one of them had varioloid at the time of revaccination.

The revaccination was performed at first with lymph taken from children, and afterwards transferred from adult to adult. The results of seven years' practice were the following:—

Of 22,780 soldiers, 7,888 were revaccinated with success; of these, 4,814 had distinct cicatrices, 1,754 imperfect cicatrices, 1,208 no trace of cicatrix, and 112 had had small-pox.

In 6,091, the effects were doubtful; of these, 3,757 had perfect cicatrices, 1,504 imperfect cicatrices, 569 no trace, and 81 had passed through the small-pox.

In 8,801, the revaccination failed; of these, 5,106 had perfect, 2,353 imperfect, 1,188 no cicatrices, 154 had had small-pox. Hence it follows, that in 100 cases, 35 revaccinations were successful, 26 doubtful, and 39 failed.—*Rust's Magazine*.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

Monday Aug. 2.

SECTION B.—CHEMISTRY AND MINERALOGY.

1. **DR. DANCE**, of Lowell, Massachusetts, United States, read a paper on a practical method of determining the quantity of real indigo in the indigo of commerce. The indigo, being dissolved by means of carbonate of soda and muriate of tin, is precipitated by means of the bichromate of potash, washed with diluted muriatic acid, filtered, dried, and weighed, the precipitate being that of pure indigo.

2. A letter was read from Professor Liebig, containing an account of a white crystalline substance procured from lichens, to which the name of orceine has been given; and an account of some experiments on the legumen in beans, which prove that this body is identical with the casein in the milk of animals. This communication also contained an excellent method, by Dr. Varrentrapp, of detecting nitrogen in organic bodies, and some remarks on the experiments of Dr. Brown, whose results, which appeared to prove the identity of carbon and silicon, Professor Liebig had not been enabled to verify.

3. A paper was read from Mr. Goldsworthy Gurney, entitled "Some experiments showing the possibility of fire from the use of hot water in warming buildings, and of explosions in steam-engine boilers." The paper detailed a number of very curious experiments, which went to prove that steam under high pressure was partially decomposed, and that in a state of gaseous vapour it was capable of heating the iron flues to such an extent that linen was charred, gunpowder fired, and fusible metal melted. The author suggested the use of fusible metal in some parts of the pipes as a preventive of fire, as, melting when the flues become too highly heated, it allows the escape of the vapour, and of course assists in cooling the pipe.

4. **Dr. Daubeny** read a paper of much interest on the disintegration of the Dolomitic rocks of the Tyrol. He suggested as a practical application of

his observations that their disintegration might be much assisted by sulphuric acid, and being thus converted into sulphate of lime, it would afford an excellent soil for vegetation.

5. Mr. Prideaux related some results of experiments conducted with a view to the protection of the copper-sheathing of ships, in which he proved that the modern copper-sheathing, from the impurities it contains, is less durable than the copper prepared many years since. He also suggested the application of coal tar as a coating to protect the copper from the action of the saline matter of the sea.

6. Dr. R. D. Thomson communicated a paper on a new method of preparing hydrocyanic acid for medical use.

SECTION D.—ZOOLOGY AND BOTANY.

1. A report was read from the committee for the illustration of the geographical distribution of plants and animals.

2. A comparative view of animal and vegetable physiology, by G. Bartlett.

3. Effect of animal exhalations on plants, by Mr. Ball. This paper proved the injury, and often destruction, to plants in greenhouses from decomposing animal bodies.

4. A report on the botany of Devonshire, by the Rev. W. Hore.

5. A report of a committee for experiments on the growth and vitality of seeds.

6. On deposits in springs, rivers, and lakes, from the existence of infusoria, by Dr. Lankester.

The proceedings of this section were unimportant.

SECTION E.—MEDICAL SCIENCE.

This, the first meeting of the section, was well attended. The communications made were—

1. A statistical report of patients of the Plymouth Public Dispensary during the years 1838, 1839, and 1840, by Mr. Samuel Derry.

2. Observations on a pustular disease, hitherto undescribed by writers on diseases of the skin, by Professor A. T. Thomson, M.D.

3. Extraordinary case of albuminous ascites, with hyalids, by Sir David D. H. Dickson, M.D.

4. Facts as yet unnoticed in the treatment of squinting, by James Vose Solomon.

5. General observations on the pathology and cure of squinting, by Dr. Butler.

6. On the cure of asthma, by J. Q. Rumball.

TINEA CAPITIS.

It has recently been stated in a communication addressed to the French Academy of Medicine, that the pustules of tinea favosa are produced by the development of a cryptogamia under the epidermis. In the year 1839, M. Schoenlein inserted a letter in Müller's Archives, in which he attributed the development of tinea lupinosa to the same species of plant.

INSPECTOR-GENERALSHIP OF PRISONS.

THE office of Inspector-General of Prisons in Ireland is now vacant, and there seems to be some chance that it will be filled by a medical man. Many candidates are in the field, amongst whom are mentioned Mr. Francis White and Sir James Murray. For our own parts we know of no one who would make a better inspector than the active Editor of the "Medical Press," Dr. Maunsell.

COLLEGE OF PHYSICIANS.

A CIRCULAR has been addressed to the Licentiates of the College of Physicians, intimating to them that they may have access to the museum and library of the college on the payment of one guinea annually.

DR. CHARLES PHILIPPS, a young Belgian surgeon, who has made himself rather conspicuous at Paris as an advocate of Dieffenbach's operations for squinting and stammering, has been made a Chevalier of the Legion of Honour.

BOOKS RECEIVED.

The Cyclopaedia of Practical Surgery, &c. Edited by William B. Costello, M.D. Parts I. to VIII. Sherwood and Co., London.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, July 23, 1841.—Stephen Spranger, William Henry Sandham, John Wyatt Barnard, Edward Octavius Hocken, Winter Moody, Arthur Newell Jones, John Myers Cockcroft.

Friday, July 30.—Edward Dunn, William Potter, Richard Walton, George Tranter, Joseph Agar Locking, William Thomas Borthwick, Archibald John Little, William Druitt, George Young Hood, William Gurslave Marshall.

TO CORRESPONDENTS.

Mr. Copeman's letter shall be published next week.

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COURSE OF CLINICAL LECTURES

ON

SURGICAL DISEASES,

DELIVERED AT THE HÔPITAL OF LA CHARITÉ

BY PROFESSOR VELPEAU.

LECTURE IX.

ON PURULENT ABSORPTION.

Mechanism of purulent absorption.

GENTLEMEN,—The depositions of pus and metastatic abscesses which take place after injuries, wounds, or surgical operations, depend on an alteration of the blood; such is the theory which I was the first to adduce, and which I shall now proceed to support by argument.

Any suppurating wound may give rise to metastatic abscess; a simple incision of the pericranium; division of a varicose vein; excision of a pile; venesection; these simple injuries may excite the disease just as readily as the more dangerous operations of lithotomy, amputation, or excision of the neck of the uterus; in some cases, metastatic abscess has arisen as a consequence even of a stemon, a blister, or a common boil. These facts have been long well known. Ambroise Paré mentions them; Pigray alludes to a certain year, during which metastatic abscess of the liver was found in all the patients who died of injuries of the head. Morgagni relates in full several cases of purulent absorption; in one case, the right pleura was found filled with pus, the patient having received a wound on the left side of the chest, which had no communication with the cavity of the pleura. In another case, he mentions the occurrence of encysted deposits in the lungs of a young man who died on the sixteenth day after a penetrating wound of the chest; he likewise relates, after Valsalva, four cases of injury of the head, followed by purulent deposit in the lungs or pleura. Several other writers mention similar cases, and interpret them each according to his own fashion; I may mention to you the names of Quesnay, Col de Villars Marchette, Bohn, Baillou, Molinelli, Petit, Ledran, &c. However, the facts recorded do not seem to have attracted sufficiently the attention of surgeons, until I described the affection in a more careful and detailed manner. At the commencement of my medical studies at Tours, I was struck with the frequency and danger of this disease, and made it the subject of much research. In 1818, I noted a case of purulent absorption, and then pointed out what I believe to be its true cause. The facts observed since then have only confirmed my original opinion, and I still uphold, as I did then, that metastatic abscesses are not the result of separate and local inflammations, but of the alteration in the blood caused by the admixture of pus. It was no easy

matter to sustain this humoral theory at a time when the physiological school was all powerful; but it has been generally adopted both in France and in foreign countries.

For a long time, writers confounded metastatic abscesses with certain morbid secretions; thus some excellent pathologists regarded them as tubercles which had rapidly softened, but these ideas have been recently abandoned, and the true explanation very generally adopted. On one point, however, authors are not well agreed; and that is the manner in which the pus becomes mixed with the blood. Marechal, Legallois, Rochoux, and others, think that it may be explained by venous absorption from the surface of wounds; others, as Dance, Blandin, Arnott, &c., assert that the presence of pus is always preceded by inflammation of the veins, which produces the matter found in the circulation or tissue of organs after death; according to the latter authorities, pus cannot be transported from one part of the body to another without undergoing decomposition. Hence, gentlemen, we have two theories of metastatic abscess; one consisting in simple absorption from the surface of wounds; the other in inflammation of the veins. For my part, I feel convinced that inflammation of the vein does not constantly exist, but that the affection may be produced either as a consequence of phlebitis or of simple absorption. I perfectly agree with Dance, Berard, and Blandin, as to the pernicious effects of phlebitis on the blood; but I differ from them completely in this, that I do not admit phlebitis to be the primitive or even frequent cause of metastatic abscess; the veins, it is true, are frequently inflamed, and may, in certain cases, be the cause of purulent absorption; but in many others we have no inflammation of the veins, and the pus may be introduced into the torrent of the circulation either by the lymphatics, the veins which open on the wound, or by imbibition. How often have I found large collections of pus in the viscera, without being able to detect the slightest trace of inflammation in any part of the venous system? Upon this point I am positive, having determined it so frequently by the most careful examination.

The manner in which the pus is deposited has likewise excited some controversy. Dance thinks that the blood, rendered more fluid by the pus and altered in its qualities, first gives rise to a small point of ecchymosis, and then to local inflammation, before the abscess is formed; this may, occasionally, happen; but in the majority of cases the pus, I think, is deposited as it was introduced; many a time have I seen the brain, liver, spleen, kidneys, &c. filled with little abscesses not larger than a hemp seed; yet on the most minute examination I was unable to discover any lesion of the surrounding tissues; sometimes, indeed, we find the capillary phlebitis so well described by M. Cruveilhier, but this is certainly rare. If we allow that a single drop or globule of pus may be deposited in

any organ or tissue, there is no reason why several globules should not be deposited together, so as to form an abscess; and we can, I should think, easily admit, that pus mixed with blood has a constant tendency to separate from it. While the two fluids are enclosed in large vessels, and the circulation is rapid, the separation cannot take place; but in the capillary system, where the circulation is, as it were, merely oscillatory, where so many secretions and new combinations take place, the elimination of pus from the blood can be readily understood; it is, in some sort, analogous to the secretion of urine, bile, saliva, &c.

The morbid specimens, which I now show you, are of very great value in connexion with the subject of purulent absorption. They were taken from the body of a young man, on whom I operated, in January 1840, for a tumor of the scrotum which contained the elements of a fetus. A few days after the operation he was seized with symptoms of pleurisy and pneumonia; still the violent rigors which characterise the onset of purulent absorption were not present. After death, the left side of the chest was found filled with sero-purulent fluid, mixed with a quantity of false membrane; there were, at least, two quarts of this fluid. The lungs, which you see before you, contained an immense number of small abscesses, but the surrounding tissue is perfectly healthy. You can easily understand how a disease like this resisted all our means of treatment; how general bleeding, antimonials, revulsives, &c., would have failed to arrest it; the man's fate was sealed from the moment he was attacked.

Any of you who watched this interesting case, will remember that the symptoms of pleurisy and pneumonia were, all along, very obscure and anomalous; the patient was overwhelmed with a degree of weakness and stupor, which seldom occur in conjunction with these diseases. In almost every case of purulent absorption that I have cited to you, violent rigors were one of the most characteristic symptoms; here they were entirely absent; and this is worthy of notice, as putting us on our guard in cases where no trembling or rigors may exist.

Another important point connected with this case, is the state of the veins of the scrotum. You cannot find the least trace of inflammation here, or in any of the other veins; the fact is clear and indisputable.

Prognosis.—The prognosis of purulent absorption is extremely unfavourable; from the insidious manner in which this affection commences, it is very difficult to detect it at an early stage, and at a later period the resources of our art are unavailing. Whenever a patient who has undergone any operation, or labours under abscess or a suppurating wound, is suddenly seized with severe rigors, with alteration of the countenance and fever, we have to dread fatal results, for death is the usual termination of metastatic abscess. We must not, however, completely despair of saving the patient; for when the unfavourable symptoms last for two or three days only, or when they terminate in some crisis by the urine, general perspiration, &c., and the febrile symptoms subside, some hope is left; I have seen several patients recover under these circumstances; however, we must allow that such cases are very rare.

Treatment.—The treatment of metastatic ab-

scess is not well determined; at first, this terrible affection was combated with general bleeding, leeches, &c.; but these remedies are only applicable to an early stage of the complaint in robust individuals; besides, the antiphlogistic method very rarely succeeds; I have tried it myself in a great number of cases, and must confess that I have seldom derived any advantage whatever from it; however, it may be of some use in cases where there is evident inflammation with severe pain. Purgatives have been much employed, and I have derived much advantage from this class of remedies when given at an early period; tartar emetic, in high doses, has been recommended by Laennec, Breschet, Sanson, &c., and successful cases have been recorded; for myself, I have been much less fortunate than the surgeons just mentioned, for the patients whom I have treated with tartar emetic died, as well as the others; the white oxide of antimony, in doses of one or two drachms, was equally inefficacious. The same remark will apply to camphor, ether, opium, ammonia, and other stimulants; the latter, instead of doing good, seemed to hasten the progress of the disease. Sulphate of quinine has been given with the effect of arresting the rigors, but it produced no permanent improvement. Large blisters to the legs, or on the chest and abdomen, according to the seat of pain, should not be neglected; M. Blandin assures us that he succeeded in curing one patient by the application of several blisters to the limbs and trunk, with the internal use of diuretics and sudorifics.

You see, gentlemen, that our resources are very limited indeed; in fact we can hardly say that medicine effects anything. The following, however, is the mode of treatment which I would advise you to adopt, should any of your patients present the symptoms of this dreadful malady. Endeavour, in the first place, to determine the fluids towards the wound by large poultices; at the same time apply blisters on the legs or thighs; give some diuretic tisan internally; if the patient be young and robust, the pulse full and strong, then bleed; if he complain of severe pain in the chest or abdomen, apply some leeches or cupping-glasses. Should the wound present a dry, unhealthy aspect, you may employ a bark lotion, or in certain cases apply leeches, or scarify it, or put on a blister; these means are particularly indicated when you have any reason to suspect the existence of phlebitis. You may also envelope the limb in a bandage from the wound towards the trunk, so as to exercise powerful compression; purgatives, also, should be employed in addition to the means now pointed out. Should stupor, with meteorismus and dark incrustation of the mouth exist, you may try tartar emetic in high doses. When the patient is very feeble, give the bark or the sulphate of quinine, especially in cases where the symptoms are intermittent. Of the local means, there is none in which I have so much confidence as the bandage, if applied before the pus has found its way in any quantity into the circulation. In inflammation of the veins of the extremities, when the disease has not ascended beyond the venous radicles, and before the formation of metastatic abscess, we can almost always arrest it by the bandage; even when the blood has been tainted, we may still employ it, because we thus cut off the source of the poison, and give the vital powers a chance of overcoming the malady. I

have published several cases in the *Archives, Medical Review, &c.*, which demonstrate the efficacy of the treatment now alluded to. I shall relate one or two of them in illustration.

CASE I.—In July 1826, M. G., a young chemist, was seized with severe pain in the right leg, and all the symptoms of inflammatory fever. I was called in twenty-four hours afterwards, and found the leg much swollen; the skin was red in patches, chiefly along the line of the internal saphenous vein; the slightest movement caused acute pain. I was unable to feel the vein from the tumefaction of the leg, but higher up in the thigh, where the inflammation was less severe, the saphena formed a round, firm chord. The pulse was strong and frequent; skin hot and dry; tongue white; no pain in the chest or abdomen. On inquiring into the cause of my patient's complaint, I learned that a small sore on the outer side of the heel, which had suppurated for the last week, became dry on the evening before: this was all that I could discover or learn. I ordered the patient to be bled to twelve ounces, and to have sixty leeches to the groin, with poultices and a warm bath.

3rd day. Pulse not so strong, but as frequent; thigh less swollen; leg more so. Forty leeches about the knee; bath.

4th. Inflammation unabated; pain very severe; the superficial inguinal glands are tumid and painful. Forty leeches to the groin; forty more on the leg.

5th. No local improvement; fever less violent; cold lotions were now applied for twenty-four hours, but without any benefit.

6th. The whole limb, from the toes to the groin, was enveloped in a bandage moistened with cold water; the pain was increased, for three or four hours, in some parts of the limb, but in others diminished.

7th. The patient has slept a little; no fever; some perspiration; tumefaction and redness of the thigh almost gone; saphena vein still hard and somewhat painful; swelling and inflammation of the leg much diminished.

8th. Did not pass so quiet a night; the back of the foot, and the parts underneath the ankles, are more painful and tense; on the dorsum there is an evident fluctuation; on opening this point, about a spoonful of pus was discharged. Pressure continued, except over the painful part of the foot.

11th. An incision was made beneath the ankle, and about an ounce of pus discharged; from this time the patient gradually recovered, but the saphena vein remained for a long time hard.

CASE II.—A labouring man inflicted a wound on his thumb, over the cephalic vein; the incision furnished some pus for a week or two, when inflammation began to extend, in lines, along the back of the hand. On the 15th of November the parts were very painful and red, and all the veins evidently inflamed. Twenty leeches were applied.

16. The veins of the fore-arm are now affected; they form red cords extremely sensitive and tense; the arm is beginning to swell; pulse strong, frequent; skin very hot and dry; face flushed. Bled to twelve ounces.

17. Pulse 120; fever very violent; delirium;

arm swollen up to the axilla; glands enlarged and painful; the whole limb is involved in severe phlegmonous erysipelas, which is more intense along the trajet of the superficial veins than elsewhere. The whole arm was now surrounded with wet clothes, and over them was rolled a firm bandage, from the fingers to the shoulder. The patient, frightened at the idea of having a bandage on so painful a part, complained a good deal for three hours; but towards evening he became quiet; the fever was now milder. The bandage was again moistened.

18. Passed a good night; pulse 80; has perspired a little; arm less swollen and red; the upper two-thirds of the arm are of nearly natural size, and here the cephalic and basilic veins can be felt like knotted cords. Bandage re-applied, the compression gradually diminishing towards the axilla.

20. Much improved; little inflammation now remains, but the back of the hand is still swollen and painful; the wound of the thumb is completely healed.

21. Arm and fore-arm of nearly natural appearance; after a lapse of four days more the inflammation of the hand had subsided, and the cure was complete.

CASE III.—In February 1828, M. O——, student in medicine, thirty years of age, scratched his left thumb, while placing a dead body on a dissecting table. The next day he felt some pain in the part, but thought nothing of it.

On the 3rd day he was seized with a violent rigor; the face was pale and anxious, and patient felt so ill that he went to bed. The thumb was now swollen; there was considerable fever; he passed a disturbed night. I saw him on the fourth day; the pulse was now 115, strong and hard; skin burning dry; face of an earthy yellow hue; no pain in chest or belly; hand much swollen; arm also tumefied, but less so; the pain is most severe on the back of the hand near the angle between the index and middle fingers. He was bled to twelve ounces. In the evening the inflammation had extended considerably; the fingers and hand were so livid and swollen that it seemed as if they were on the point of becoming gangrenous. I applied the bandage up to the arm-pit; it was moistened from time to time with cold water.

5th. The fever has ceased; face more natural; inflammation of the fore-arm diminished, but severe pain is still felt in the hand, which is considerably swollen: the epidermis is detached by a large phlyctena. The bandage was reapplied as before; during the next twenty-four hours excessive pain and sense of heat felt in the hand.

6th. Arm free from inflammation; fore-arm better; the hand still very painful and tumid; as it was thought that pus was collected, the original wound was enlarged with the bistoury, but nothing escaped. The bandage was again applied, and considerable pressure made on the fingers and hand, but this caused such severe pain that the patient was forced to remove it during the night.

7th. Arm quite well; hand less red and tumid; on the 9th day, the patient was in all respects much better; there occurred, however, some gangrenous spots on the extremities of the fingers,

but the injury caused by them was very slight, except on the index, where the nail and part of the last phalanx were lost. The patient was soon restored to complete health.

ABSTRACT OF DR. M'CAROGHER'S ADDRESS.

(Delivered at the Anniversary Meeting of the Southern District Branch of the Provincial Medical and Surgical Association.)

THE departure of our late president elect (Dr. Forbes) from among us, to take his station in a wider and more commanding field of exertion, has placed me in the honourable seat which I now occupy; and I am sure I speak not my own sentiments merely, but the earnest wish of every one who now hears me, when I say, may his new career be in accordance with his most sanguine hopes.

In an age distinguished by the zeal, ability, and high attainments of the leading men in the medical profession, not only in this country, but throughout the enlightened world—in an age pre-eminent for the ardour with which medicine and the branches of knowledge subservient to, and allied with, medicine, are cultivated, and for the rapid progress with which advances in all these departments are made, our late president elect holds a high rank.

His contributions to the medical literature of our times have a double value in their own intrinsic excellence, and in the impulse which they have been so well calculated to add to the advancement of sound views on the most important practical subjects, and to the growing diffusion of the spirit of just knowledge through all the gradations of the profession.

It is the wide spread of knowledge that more especially distinguishes the period in which we live—the speedy communication of all that is most desirable to be known, even to the corners of the land most remote from the great marts and centres of science. I do not say that the attainment of this object, so beneficial in every point of view, is complete, for complete it never can be. I speak of the period in which we live, as distinguished, in this respect, above the times that are past; but I would not rashly attempt to estimate what rank, in the same respect, this age is to hold in comparison with those that are to follow. What I wish to guard myself against is, the being supposed to inculcate that the desirable object just referred to is already fully attained—that there is no need for further exertions to facilitate the cultivation and diffusion of medical knowledge. This object is, as I understand it, the chief intent of this association; and I would not have it imagined for a moment that I believe there is not room for increased efforts, and for the concurrent labours of similar associations throughout the empire, and throughout the enlightened world, as well as for the continued active operation of all those numerous means and contrivances which the ingenuity of the times has devised to promote the same great end. I do not apologize for these remarks, as in any way a digression from the subject of our late president elect.

If there be any single subject in pathology, the cultivation of which has done more than the rest

to awaken curiosity, to spur on diligence, to banish supineness in all ranks of the profession, it is the echo throughout all enlightened countries of the new pathology of the heart, and of the application of auscultation to the diagnosis of diseases. You are all aware how much our late president elect contributed to the improvement of this new pathology in its infant state, and to the circulation among his countrymen of a knowledge of this subject.

The great impediment to the desirable object of a near equality of knowledge, zeal, and professional attainments between the provincial practitioner and his metropolitan brethren, is not merely the less favourable opportunities for the intercommunication of sentiment on the diversified subjects of medical practice, but also the less ready access to works of reference, by which he might measure and guide his own progress in professional knowledge, by the progress that is made throughout the world.

The Cyclopædia of Practical Medicine has conferred on the whole profession, but more especially on the provincial practitioner, a boon, valuable in a degree, that can be very little estimated by its mere literary merits, great as these undeniably are.

You are all familiar with the share taken by our late president elect in that work, and with the extent to which it owed its excellence to his support.

Periodical literature is one of the most serviceable means by which the great object before referred to, namely, the diffusion over the wide extent of the empire of the knowledge that is daily accumulating, is accomplished. Yet this object is not gained by the ordinary periodical literature of the day, especially by that which appears at very short intervals, without some accompanying inconveniences. There is apt to be too little time for the separation of the chaff from the grain—too little selection—too little discrimination between that which is merely of passing interest, and that which, though prolix, or even heavy to the reader, is of paramount importance to the steady advancement of medical science. It should never be forgotten, that the mere gratification of the reader, by temporary motion, is not the test by which the utility of a medical periodical is to be judged. It should have higher aims, though these be not so readily appreciated by the young and inexperienced. To be found short and interesting, are the tokens which draw forth approbation from the younger reader; "long and dry" are the words by which he is too apt to condemn, without considering whether the subject be such as can be treated of advantageously, without long details or dry analysis.

The conciseness of direct assertion, the summariness of an authoritative yea or nay, contrast pleasantly with the tediousness of exposition by proof, of the balance of conflicting evidence, or of the details of experiment. Yet I know I may for the present safely violate the rule I would advocate, and take your permission to affirm, without further preamble, that the short dictum of authority has not been more remarkable, in past times, for retarding the progress of all kinds of science, than the careful exposition of inductive or experimental evidence for advancing it.

A few years ago, the pleasant brevity, the in-

teresting conciseness of the weekly medical literature, seemed to have such a charm for the profession, that the elaborate gravity of the veteran Quarterly of the North, and even the lighter copiousness of the Medico-Chirurgical, was ready to sink before it. But a new era was at hand; the birth of the British and Foreign Quarterly Review rescued the quarterly periodicals from impending ruin, and even raised them to a loftier station than they had ever held, while it was made plain, that though these can no longer enjoy the monopoly held in former times, there is still room for their exertions; that the true axiom to save them from falling before their hebdomadal rivals, is to beware of confounding the prolixity which is often inseparable from excellence, with excellence itself.

To the projectors of the British and Foreign Quarterly, (among whom our late president elect holds so prominent a place,) the profession owe much gratitude. They have shown the high ground which the quarterly periodicals can take and maintain; that these have a separate province; that there is room for the services of one order of labourers at quarterly intervals, as well as of other labourers at monthly or weekly intervals, and that the labours of both are conducive, I should rather say jointly necessary, to the fullest measure of improvement in medical science, and to the diffusion of medical knowledge.

The quarterly medical periodicals stand nearly in the same relation to the monthly and hebdomadal medical journals, as the political periodicals to the daily press. Their task is to sift, compare, and digest, the particulars collected and spread about by their more hurried brethren, to correct errors, to reconcile contradictions, to draw back to the right path of investigation those whom the ardour of youth, the love of novelty, the confidence of inexperience, have led astray, (though otherwise profitable labourers in the cause of improvement,) to view from a more commanding height the labours which are going on around; to estimate more deliberately the importance of what is witnessed on every side relating to the past, the present, or the future progress of medicine; to apply with that skill, which solid judgment (aided by more careful training, or especial advantages of talent or opportunity, in regard to the several subjects under consideration,) can alone supply—to apply, I say, the actual state of each department or object of knowledge, so as to test and appreciate the merits of new discoveries, whether these be speculative or practical.

Such, it appears to me, are the chief objects which the quarterly medical periodicals are calculated to serve, in a far higher degree than is possible for those that appear under the hurry of shorter intervals, the utility of which, however, in their own sphere, is not for a moment to be questioned. I believe that the rise of the weekly medical periodicals, concurrently with some other favourable circumstances, in our times, has wrought great and important changes in the actual state of the profession, and that these, under a continuance of the same circumstances, are destined hereafter to accomplish still higher objects. Yet these acknowledged benefits should not blind us to the disadvantages which would result from our periodical medical literature being

exclusively of this hasty character, and I think you will agree with me that the review, which our late president elect has so ably supported, closely answers to the description just attempted of the objects which a quarterly medical review may be made to serve.

Some apology would be necessary for having dwelt so long on such topics, were these merely connected with the merits of our late president elect, as an individual; but none, I am sure, will be felt requisite, when it is remembered that there is not one of them which is not closely related to the very object of this association, the reassembling of which has given occasion to this discourse.

During the few years that have elapsed since its institution, this association has prospered, and has amply filled up the measure of expectation formed of it at its commencement. May it continue to prosper—and may the exertions of the individual members supply that of efficiency, which my humbler effects must lack, as compared with those of my predecessors.

I consider myself fortunate in having found, as the materials of this address suggested, by the labours of our late president elect, topics connected with the general improvement of medical science, and the diffusion of sound knowledge through all parts of the profession, without the necessity for touching very extensively on that subject which has engaged of late so great a portion of attention, not only in the profession itself, but in the chambers of the legislature, and among the public at large—you cannot fail to perceive that I refer to *medical reform*.

My principal objection to entering on this subject at present is, that it is a topic apt to raise a dissension—that there is a want of agreement as to the proper objects of medical reform, and as to the kind of means by which it should be carried through.

Without, therefore, giving any definitive opinion on the merits of the bills circulated among the profession, or brought before parliament, or on the resolutions of the medical corporations and associations, or on the articles in the periodical press, medical and non-medical, which these have called forth, I will simply call your attention to the leading features of the case, which is held to require reform, and to the number of contending interests which stand in the way of a reform being speedily brought about.

There are two parties to reform, the profession and the public. The members of the profession in general seek such reform as will afford an equality of privileges and a protection against the intrusion of unlicensed and irregular practitioners. The interests of the public require security for the sufficient education of those to whom a license to practise, by the delegated authority of the state, is granted; together with as much precaution as the nature of the case admits of, against dishonesty or fraudulent conduct in the licensed practitioner, when confidence is reposed in him. The interests of the several parties concerned do not uniformly coincide. Hence, medical reform has not the same force or import in the mouths of all who raise the cry for it. Neither is it to be expected that those who enjoy solid advantages under the existing state of things, will voluntarily lay these down, notwithstanding that they profess themselves convinced of the necessity of certain reforms—which will generally be found in their estimation

to apply to few of those points which are beneficial to themselves—being limited to those, the advantages of which belong to others. As long, then, as the parties who demand medical reform are not agreed in fact as to objects sought, while they in reality have different aims concealed under one word, it is vain to expect any simultaneous effort towards its accomplishment; and if any one party, that is, of those who have in view one only of the several objects concealed under the term medical reform, by obtaining a preponderance, shall succeed in carrying through parliament a measure framed exclusively on their own idea of such reform, it cannot be doubted that, instead of quieting the agitation which has prevailed on this subject for some time past, such a measure would only give rise to still greater dissensions.

Before such a reform can be obtained as shall be generally beneficial and satisfactory to all concerned, large concessions must be made mutually by the several parties, whose substantial interests are at stake.

If the interests of the public require that the profit accruing from the supply of medicines should be withdrawn from the practitioner, the public must make up their minds to afford him an adequate remuneration for his attendance in the shape of fees. If the chemists and druggists are to obtain a monopoly of supplying medicines, they must be prepared to submit to some regulation for their education, and to their fitness for the duties which they undertake being tested by examination.

If the licentiates of the Apothecaries' Company are to be protected against unlicensed and irregular practitioners, they must be content to allow the same privileges which they themselves enjoy, to all who, under the sanction of the state, have been declared competent to practise, wherever these may have obtained their license.

If the existing boards are to retain the privilege of licensing practitioners, they must consent to enjoin such a course of study and such an amount of examination as the wants of the country require, and must agree to some *surveillance*, for the purpose of ascertaining that there is no undue relaxation of the regulations which they profess to abide by.

But it is premature to occupy your time with crude notions on this subject; for it is only since the circulation among the profession last autumn of the drafts of bills by Mr. Warburton and Mr. Hawes, that any distinct notions of the true state of the case have begun to prevail, or that the real difficulties of the question have come to press themselves on our attention. The actual introduction of a bill into parliament is a great, though remote, step towards the final attainment of a reasonable reform, by forcing each party to abandon the vague term reform, and to put forward explicitly the objects sought for, indeed, before, yet secretly under the cover of an indefinite name. We are now placed in the way of coming to an understanding with each other on the subject.

The great principle is never to be lost sight of, that the medical profession exists for the benefit of the public. Yet this principle will not carry us far in settling the details of reform. In acting on this principle, some regard must be had to the private interests of those who have largely embarked their means in the profession, on the faith of a stability in the present order of things. Nor is

the interest of all who compose the public the same. The reform which will benefit the **wealthy**, is not necessarily that which will benefit the **poor**; nor are the interests of those immediately above the poor, who refuse to participate in charity, the same as those of either of the other two classes.

Further, I confess myself adverse to sudden and great changes. I do not believe that a **workable** constitution can be framed at once on paper, for the medical profession, on mere general considerations, without taking into account the infinite variety and diversity of the elements concerned, both as respects the public and the members of the profession, any more than a political constitution for a body of people can be devised on mere abstract principles. I cannot help feeling doubts as to the utility of the proposed system of double licensing—I mean of licensing by the **existing** boards, and afterwards, upon registration, by superintending boards. Such a plan attaches too great importance to the test of examination.

Examination is indispensable to exclude the absolutely ignorant. Yet the turn of mind which gives pre-eminent success in examinations, may be too much cultivated or too much encouraged. It is not the same kind of training which makes the best practitioners. Let the education of the general practitioner be equalized at all the schools—let the examining boards be subjected to a surveillance—let some pains be attempted to exclude those who are morally or intellectually defective, from entering at all on the study of medicine; and let the schools of medicine take some more active charge of the progress of the student, but let the license, when once obtained, entitle him to practise everywhere without further impediment or molestation.

The valuable boon of a registration of licensed practitioners will lose nothing of its force by being unaccompanied with an examination.

I cannot help feeling opposed to any system which would withdraw the attention of the members of the profession from their duties to the sick, and from their own improvement in medical knowledge, by engaging them in the bustle of elections, and involving them in canvassings, jealousies, and heart-burnings, inseparable from such proceedings, which are so totally alien to the quiet demeanour and calm propriety which should adorn the medical character.

OBSERVATIONS

ON

TWO MEMBRANES OR FASCIAE,

CONNECTED WITH

THE MUSCLES OF THE HUMAN EYE.

By P. BENNETT LUCAS, Esq.

SURGEON TO THE METROPOLITAN FREE HOSPITAL, LECTURER ON SURGERY AT THE HUNTERIAN SCHOOL OF MEDICINE, &c.

(Read before the Medical Section of the British Association, August 2, 1841.)

To a treatise "On the Cure of Strabismus, or Squint, by Operation," which was published more than a year since, I prefixed some observations on

the anatomy and physiology of the muscles of the human eye.

In examining these parts in man, and in some of the lower animals, I was struck with the existence of two fasciæ, to which I gave the names of *subconjunctival* and *submuscular*.

In the treatise I particularly dwelt upon the necessity of being well acquainted with these structures, before the surgeon attempted to perform the new operation for the cure of strabismus, and I described them in these words:—"Behind the conjunctiva there exists a quantity of loose cellular tissue; upon carefully removing which, a denser layer will be found immediately to cover the orbital aspects of the recti muscles, and to pass along their expanded tendons to the sclerotic, with the anterior surface of which it is in intimate contact, and is traceable along it to the circumference of the cornea, becoming thinner and more identified with the sclerotic as it gains this point.

This subconjunctival fascia, although exceedingly delicate, is sufficiently strong to offer considerable resistance to even a slightly blunted instrument; and as, in addition to its passing from all the recti muscles to the sclerotic, it also passes from the anterior surface of one muscle to another, it is of importance to be aware of its existence in performing an operation for the section of the tendons of the recti muscles. Unless the subconjunctival fascia be torn through or divided, the passage of an instrument beneath any of the tendons will be attended with difficulty.

"In several eyes, which I have lately examined, this fascia presented different degrees of strength, such as we find to be the case in our examinations of the fascia cooperi; and this anatomical fact most satisfactorily explains the ease with which, in some cases, an instrument can be passed beneath the tendon of the inner rectus muscle preparatory to its section, and the difficulty which accompanies this proceeding in others.

"There exists another fascia in connexion with all the muscles of the eye-ball, which is deeper seated, of a more uniform density, is much stronger, and of equal importance with that I have just described. It is expanded beneath the muscles and their tendons, passing from one to the other, and covering the masses of fat which envelope the posterior part of the eye-ball. This submuscular fascia is easy of demonstration. The eye and its appendages, with half an inch of the optic nerve, should be removed from the orbit and placed upon a plate, the cornea being downwards. The masses of fat, together with the loose cellular tissue and blood-vessels, should be carefully dissected away, and the muscles be turned forwards towards their insertions, not dissected as if with a view of exposing their appearance, but merely expanded upon the surface of the plate.

"If the neurilemma of the optic nerve be now examined, it will be found covered with a fine fascia, which can be easily raised with a forceps, and with little difficulty can be traced off the neurilemma to the sclerotic coat at the point where the nerve enters. It will be now found to cover the posterior aspect of the sclerotic, and to advance as far as the insertions of all the muscles of the eye; at these points it turns upon itself, lines the ocular surfaces of the muscles, and passes backwards along them to where they surround the optic nerve,

"The submuscular fascia, like the subconjunctival, passes also from one muscle to the other, and forms a strong, continuous, double circular membrane behind them, the masses of fat, enveloped with their own proper cells, being placed between its layers.

"It also affords considerable resistance to the passage of an instrument beneath the tendons of the muscles, and in operating upon them requires to be fairly divided.

"In the eyes of young subjects, I have never found either the subconjunctival or the submuscular fasciæ as strongly developed as in the adult, and in this they resemble the tunica sclerotica, and the muscles themselves.

"The degree of development of both these fasciæ, in some cases I operated upon for the division of the internal rectus muscle, was very great, and was quite sufficient, after the muscle was fairly divided, to give the eye an inclination inwards; when I divided this tense structure, the eyes became perfectly straight. Contractions of other fasciæ of the human body, as the plantar and palmar, are so frequent as constantly to call for operation; and the development and contracted state of the subconjunctival and submuscular fasciæ resemble these, and require careful examination before the surgeon pronounces that he has succeeded in curing a squint, after he has divided the tendon of the muscle."

Amongst the many favourable notices which the medical periodicals made of the volume from which I have taken the extract just quoted, I wish particularly to refer to that contained in the Dublin Medical Press for October 28, 1840, as in that publication these two fasciæ are especially noticed; and although the reviewer is somewhat sceptical as to their existence, yet the mere notice of them in a journal—one of whose conductors, Dr. Jacob, is so eminently distinguished as an oculist and an anatomist—at all events gives me the credit of discovering and of describing such, if they do exist.

The writer in the Dublin Medical Press, says, "Mr. Lucas thinks he makes out two fasciæ, the existence of which may cause embarrassment in the operation. Not being partial to fasciæ in general, we must refer to the work for an account of them, and recommend our readers not to be much intimidated by the obstacles they may present in operation."

Now, since my first description of the subconjunctival and submuscular fasciæ, and since the notice of them in the Dublin Medical Press, other descriptions of the same structures have been published both at home and abroad, and published as original. I shall rest satisfied with the evidence I have adduced in support of my own claim to having described them a year and a half ago, and to my having, in an especial manner, drawn the attention of the practical surgeon to their existence.

When I first described the two fasciæ in my treatise on strabismus, I did not venture an opinion as to their physiological uses, or as to their properties; I merely described them to exist, and considered them in their bearings to operative surgery alone.

The main object of this paper is to place on the records of the British Association the existence of these fasciæ, and to inquire into their physiological uses and vital properties;—points which cannot

but be of great interest, as bearing on the actions of a group of muscles which have at all times been looked upon with the liveliest interest, and have, moreover, been the subject of many controversies. The subconjunctival fascia, like the subcutaneous fascia of the neck, the groin, and other regions, presents many degrees of density in the different subjects in which it is examined. It is present in all, but in the young subject it is very delicate. It is composed of condensed cellular tissue, and possesses elasticity. From its intimate connexion with the muscles of the eye, added to its elasticity, it keeps them expanded, and enables them to produce those varied and delicate movements of which the organ is capable.

When it is considered that the muscles of the eye are long and delicate, and have, with one exception, to pass from the depth of the orbit to its circumference, the advantages of their being supported and kept in an expanded state becomes obvious. If this were not the case, the eye would be abruptly pulled about in the orbit, and that steady, uniform, and perfect movement which it enjoys, would be more or less limited. We have numerous other instances in the human body, of delicate and long muscles being supported in their movements by special fasciæ; thus the delicate and long muscles of the neck, as the omo-hyoid, the sterno-hyoid, the thyro-hyoid, &c., are bound to their regions by what has been properly called cervical fascia; and when this covering is removed from them, and the muscles are, as it is termed, "dissected clean," the most erroneous opinions are often formed by the novice in anatomy, of their uses and relative positions.

In some cases of strabismus in which I operated, I found the subconjunctival fascia very dense and adherent to the conjunctiva and the muscles, and in more than one instance I traced this condition to the persevering application to the eye of powerful collyria. In one case, which I have mentioned elsewhere, the strabismus took place in the adult suddenly, and, besides many other remedies, stimulating collyria of various kinds were assiduously persevered in for months. When I divided the inner rectus muscle in this case, I had afterwards to divide freely the fascia again and again, until the eye was restored to a proper position. A surgeon, whose opportunities of operating in strabismus has been limited, might readily mistake the subconjunctival fascia for the conjunctiva itself, after the incision of this latter membrane has been made; for, on dividing the conjunctiva, its edges separate, and on dividing the fascia, its edges also retract. In some cases, it is necessary to divide freely, and even to remove portions of the subconjunctival fascia; in no case is it necessary to deal with the conjunctiva after this fashion; it is therefore of importance to have a test by which we can distinguish the one from the other; this test will be found in the extreme sensibility of the conjunctiva, if it should be seized in the forceps, and the absence of pain when the fascia is thus laid hold of. I have repeatedly cut away a portion of the subconjunctival fascia, sufficient to cover half my thumb nail, without the patient being sensible of my proceedings.

The submuscular fascia is very elastic in the recent eye, and is attached behind to the sclerotica, at the point of entrance of the optic nerve, and

anteriorly it is connected to the same membrane at the points of attachment of the muscles. It is not in intimate relation to the muscles until it arrives near to their insertions. This fascia also possesses a high degree of elasticity, and forms rather a membranous sheath for the sclerotica, than an expansion for the muscles; it takes the form of the eye-ball, and acts the part of a membranous cup for the organ to move in, separating it from the bellies of the recti muscles, and covering the ciliary nerves as they pass onwards to pierce the sclerotica. In the dead eye, more or less fluid will be found to exist between this cup-like membrane and the eye-ball, which always enables the anatomist to separate one from the other with the greatest facility. That effusion to a considerable extent sometimes takes place between this membrane and the eye-ball, there can be little doubt; and how far in such cases the surgeon would be justified in giving it exit by puncture, is a question that must be decided by future experience, but about the propriety of doing which I at present entertain the highest opinion as to utility and practicability.

ON THE CURE OF SPINA BIFIDA,

BY A NEW OPERATION.

By M. DUBOURG,

PHYSICIAN TO THE MARMOISE HOSPITAL.

In order to obtain a radical cure of the disease called spina bifida, two conditions must exist; it must be simple, and not the result of rickets; and, second, it must be of small extent. On reflecting upon the method employed by Sir A. Cooper for the cure of this intractable affection, I thought that a better mode might be adopted, and the following were the reasons on which my theory was founded. Recent observations have shown that the soft parts contiguous to osseous parts which have been arrested in their development, exercise considerable influence on the bringing together of these latter; we have an example of this in division of the maxillary and palatine bones. In cases of cleft palate, &c., when the soft parts are brought together by suture, they have a constant tendency to approximate the divided bones, and do eventually effect this object whenever the deformity is not very considerable. From analogy, then, we may conclude that by bringing together the soft parts over the divided spine, (after removal of the sac,) in cases of spina bifida, we may favour the approximation of the osseous parts, and finally obtain a radical cure. The great difficulty in this undertaking is to prevent the introduction of air into the cavity of the vertebral canal, and the escape of the cerebro-spinal fluid, accidents which are generally regarded as extremely dangerous: besides, it has been thought that the tendency of the cerebro-spinal fluid to escape through the wound would prevent the complete formation of any cicatrix. Reflecting, however, that even wounds of the head, by which the substance of the brain was exposed, occasionally healed, I thought that the above objections might be overcome; I determined on seizing the first opportunity of putting my ideas in practice. As a mea-

sure of precaution, it seemed to me prudent to embrace a considerable depth of soft parts in the ligatures, and that the twisted ligature, which I used, should be much thicker than the one commonly employed.

CASE I.—Child eight days old—*spina bifida*—excision of the sac—twisted suture—cure.

In the spring of 1837, I was summoned to examine a little girl eight days old, who had a tumor on the lumbar region, which two medical men had been unable to characterise. At first sight, the nature of the tumor seemed doubtful; it was not larger than an apple, slightly flattened, firm to the touch, and attached by a pedicle of about five and a half lines in diameter; covered with a net-work of turgid veins, it had the appearance of a vascular fungus. On examining the base of the tumor, we discovered two osseous edges, and in the centre a want of resistance evidently arising from defective ossification of the vertebrae; the opening might receive the tip of the index finger. The tumor was opaque, and its walls were very thick, much denser than in cases of well-developed hydrorachis; as to the seat, it seemed to occupy the last lumbar vertebrae; all the others were perfectly formed. The child presented no other deformity; the head was not large; all the organs and functions were healthy; the operation, therefore, might be undertaken under favourable circumstances.

An elliptical incision was made round the base of the tumor, but as soon as its pedicle was divided, a quantity of reddish serum escaped; the excision of the sac was, therefore, rapidly effected. To close the opening, the end of the index finger was placed over the vertebral deficiency, but it penetrated into the canal, and came in contact with the exposed spinal marrow. The edges of the wound were now brought together with four needles, and the twisted suture applied, as in hare-lip.

The child cried vigorously at the commencement of the operation, but as soon as the cerebro-spinal fluid was discharged it fell, for a few minutes, into a state of stupor. As the needles were applied it again began to cry, and when the dressing was finished, took the mother's breast as if nothing had happened. As may be well imagined, I watched this case with great anxiety: on the fourth day the needles and the sutures were removed, and the edges of the wound were found to be united by the adhesive inflammation; sticking plaster was now applied, and in fifteen days the cicatrix was completely solid, filling up the slit in the spinous processes. Since then I have frequently seen this child, whose cure remains perfect.

On examining the tumor after its removal, we found that it was a true cyst, communicating with the cavity of the vertebral canal, and composed of integuments, lined with dura mater and arachnoid; its cavity, however, was not proportionate to its size, for there were several layers of adipose and cellular tissue between the external and internal walls; hence the opacity of the tumor, which would have, probably, become thinner and more transparent as these layers disappeared.

CASE II.—Child eleven days old—tumor in the cervical region—excision—twisted suture—cure.

Early in September, 1838, a young woman gave birth to a female child, at the back of whose neck was noticed a spherical tumor as large as a middle-sized orange; the year before the mother had given birth to another child, affected with the same deformity, in the same region of the body.

The tumor, in the present instance, was of rounded form, somewhat flattened at the apex, little transparent, fixed over the junction of the last cervical and first dorsal vertebrae by a large pedicle; in the centre of this latter was felt a hard cord which led to an irregular slit or opening in the vertebrae. The general health of the child was satisfactory; its parents were healthy, and there was no other trace of anomaly or disease.

Having arranged everything necessary for the operation, I seized the tumor in my left hand, and passed a narrow bistoury through the pedicle, so as to form a lateral flap from within outwards, taking care not to penetrate into the sac, as I did in my former operation; a second incision served to remove the sac, and form the other flap; the cerebro-spinal fluid immediately issued in a limpid stream; in order to prevent the access of air and the escape of any more fluid, I hastened to introduce four needles, and to apply the twisted suture. The child exhibited marks of suffering during the operation, but took the breast immediately afterwards. On dissecting the tumor we found, as in the last case, that it communicated directly with the spinal canal, leaving an opening sufficient to admit the end of the thumb. The wound was not dressed until the fifth day, when its edges were found to be united; the little patient experienced no unfavourable symptom, and up to the present time (January 1841) has remained perfectly well.

Remarks.—From the above facts, and those which have been already recorded, we may conclude that,

1. Certain cases of *spina bifida* admit of a radical cure.

2. Although it is difficult to lay down any general rules, we may conclude that, when the opening into the vertebral canal does not exceed an inch in diameter, an operation should be performed.

3. The best operation consists in excision of the tumor and the twisted suture.

4. When the opening is small and the walls of the sac thick, we may form our flaps before opening the tumor, but under opposite circumstances we must dissect off the skin on either side.

5. The prognosis will depend on the size of the opening in the vertebrae and general health of the child.—*Gaz. Med. No. 31.*

CASE OF SPASMODIC AFFECTION

OF

THE LARYNX AND ITS APPENDAGES,

CURED BY THE

EXTERNAL APPLICATION OF VERATRIA.

By JAMES TUNSTALL, M.D.

(Read at the York Meeting of the Provincial Medical and Surgical Association.)

As it is of the first importance that each successful application of a new remedial agent should

be communicated to an association like ours, whose object is the improvement of medical and surgical science, I shall proceed, without circumlocution, to state the result of my labours in the cure of one of the most distressing and painful cases of spasmodic disease it has ever been my lot to witness.

Mrs. Stokes, the subject of the following observations, is of a leucophlegmatic habit, spare frame, and short in stature; a schoolmistress by profession; temperate, and a widow without issue; her age is forty-four. Several years have elapsed since she underwent an operation for the removal of her breast, which was attended with complete success. She has always been in delicate health, and says that when a young woman she had a violent and dangerous attack of pleurisy, the bleedings necessary for the cure of which, left her in such a weak state, that she considers herself never to have regained her strength, and to this she attributes the violent attacks which are more immediately to engage our attention.

Suddenly, and without previous premonitory symptoms, she is seized with a sense of suffocation, the whole of the muscles employed in respiration are put into violent and convulsive action, the lower extremities become cold, the face purple, the jugular veins enlarge and feel cordy to the touch; the whole surface is bedewed with cold perspiration, and the countenance is expressive of death-like agony. She is perfectly sensible during the whole attack, having never been feverish or delirious. The fit terminates usually in ordinary dyspnoea, which lasts for hours or even days, according to the violence of the attack, leaving her in her usual health.

The pulse, during the attack, is but little affected, either in force or frequency of beat; examination of the chest by auscultation shows that the air does not permeate more than about one-third of each lung, no sound being detected lower than the fifth or sixth rib on each side; this sound is the crepitating rattle, giving place, as the fit subsides, to a general bellows sound throughout the lungs; the heart is smaller than natural; it labours as though its action had been weakened by the too frequent and indiscriminate abstraction of blood, but it affords no abnormal sounds; the pulse is about 60, varying to 75.

On examining her arms, few veins are discoverable, and these mere threads; each presents numberless scars caused by the lancet, in every direction, hand, fore-arm, and elbow, while numerous scars from cupping encompass the neck, back, and chest.

In June, 1840, I was requested to visit her: she was then labouring under one of her attacks, which were described to me as asthmatic; on asking where the constriction existed, she clasped her throat. I carefully examined her, and felt convinced that it was a case of spasmodic affection of the laryngeal nerves.

Upon inquiry I found that every variety of depletion and counter-irritation had been employed; that the strongest opiates and antispasmodics had failed in procuring the slightest mitigation of the symptoms, which could only be expected from time and the most perfect rest. I found that the usual cause of the attack was violent mental emotion, or any over-exertion in her duties as schoolmistress.

Having thus, as I considered, detected the cause, and as far as possible ascertained the seat of the disease, I immediately commenced an investigation into the proper mode of treatment, but could suggest nothing but what had been repeatedly and vainly tried before.

About this period I received Dr. Stephenson Bushnan's letter to the members of the association, recommending the use of the ointment of veratria in the treatment of dysmenorrhœa. If, said I, this latter complaint is produced by a perversion of the nervous action of the lower portion of the spinal nerves, and if good effects follow the application of veratria to the sacrum, surely this case, which is characterised by undue nervous excitability of the superior and cervical portion of the spinal marrow, ought to admit of the same mode of treatment, the diagnosis being the same.

I therefore prescribed a scruple of veratria to one ounce of simple cerate, and directed that a small portion should be applied on each side of the cervical vertebrae, and rubbed well into the neck, throughout its whole extent, twice a day. About a fortnight after commencing its employment, she had an attack of what she said would have been her old complaint, but she repeated the ointment as soon as she felt it coming on, and it terminated in simple dyspnoea, without spasm or expectoration, in an hour or two.

She persisted in its use about two months, during which time she had several attacks of winter catarrh, but without spasm; she discontinued its employment in December, and from the 21st of October, the day on which it was first prescribed, to the 20th of June, she had no return whatever of her spasms, but recovered her health so well, that she was enabled to walk eight miles without assistance, whereas, previously to its use, she rarely if ever left her residence, as it always induced a return of the spasm.

I shall not offer any remarks on the efficacy of the veratria in diseases attended by undue nervous excitability, or perversion of nervous action; but I am led to believe, by the result of the above case, the only one in which I have tried it, that it is a valuable addition to the materia medica, and one which may be safely employed for the relief of those distressing nervous affections which have hitherto baffled professional skill; I therefore leave this case in the hands of those who have a more ample field for professional research, my object being merely to state the result of my employment of the veratria, with a view to improve our practice in these and similar spasmodic affections.

Dawlish, July 15, 1841.

ON DIACETATE OF LEAD IN INTERNAL HÆMORRHAGE.

By W. SWEETING, Esq., Abbotsbury.

THE use of this remedy has been long known, but as far as my observations extend, it has been administered in inefficient doses, and with combinations which appear to me objectionable, and made upon wrong principles.

Four or five years have elapsed since I first administered this medicine, in what I consider an effective dose. My practice is to give it in five

grain doses every two, three, or four hours, according to the exigency of the case. The last case in which I employed the diacetate, was one of uterine hæmorrhage, consequent upon abortion. The woman had miscarried the day before I saw her; she had lost a large quantity of blood, and the hæmorrhage was still going on; she was pale, restless, sick, and the pulse scarcely perceptible at the wrist.

I immediately gave her five grains of the diacetate dissolved in distilled water, and repeated it every hour for twelve consecutive hours, and, upon an abatement of the hæmorrhage, continued it every four hours for the next twenty-four; the woman recovered.

The diacetate should be rubbed up with a few drops of concentrated pyroligneous acid, in order to insure a complete solution of any carburate of lead, distilled water added, and the whole filtered through paper: with these precautions no ill effects need be feared.

A young gentleman labouring under typhus fever was attacked with diarrhœa, and discharge of blood from the bowels; the diacetate in the full dose was administered, and both hæmorrhage and diarrhœa restrained after two doses. He recovered.

About two years since, I was called to a man in this village, labouring under a clearly-marked case of Asiatic cholera. He had been attacked at seven in the morning, but I was not sent for till noon, when I found him pale, pulseless, cold, and all but in that frightful state of collapse denominated the blue stage. I gave him five grains of the diacetate immediately; the draught was at once rejected. I then administered one grain every ten minutes, in a teaspoonful of acidulated water. After he had taken the medicine for the space of two hours, the spasms wholly left him, with every symptom of immediate danger, and the man speedily recovered.

Dr. Graves of Dublin has recommended the diacetate in cholera, in combination with opium, and at longer intervals than I employed it. It will be a satisfaction to me, that others whose situations furnish opportunities of making more extensive inquiries into the use of the diacetate, follow up the practice herein recommended, the hope of exciting which inquiry has induced me to trouble you with this communication.

August 4, 1841.

ON THE MOTIONS AND SOUNDS OF THE HEART.

By PROFESSOR CRUVEILHIER.

On the 9th of July last, M. Monod informed me that an infant had been just born at the "Maison Royale de Santé," who presented a very remarkable specimen of malformation. On arriving at 10 o'clock P.M., (the child was born at one P.M.) I found the infant full of life, and apparently of vigorous constitution. The upper part of the sternum presented a circular opening, through which the heart had completely escaped from the cavity of the thorax; it was, indeed, as completely exposed as in animals, from which the whole sternum has been removed; it was of a pale colour, so that, at first sight, I thought that the pericardium existed; but this was not the case.

The position of the organ was changed at each

change of position of the child. On placing the trunk in a vertical position, the heart hung down in front of the sternum, dragging the trunks of the great vessels through the opening, and causing considerable pain, which was indicated by increased pulsation of the heart, and crying of the child. The axis of the heart was vertical, and not oblique; on touching it, or even pressing it slightly, no symptoms of pain were excited. The left ventricle formed the greater part of the body of the organ, the right ventricle being merely an appendix to it.

In the natural position of the heart, no part of the auricles could be seen, except the points; they appeared not to have attained their complete development.

This remarkable case afforded an excellent opportunity for studying the sounds and motions of the heart. The following were the principal facts observed by myself, M. Monod, and the pupils who were present.

Motions of the heart.

1. The contractions of the ventricles were isochronous, as were also those of the auricles.

2. The contraction of the ventricles coincided with the dilatation of the auricles, and the propulsion of blood into the arteries; the dilatation of the ventricles coincided with the contraction of the auricles and arteries.

3. There are only two periods in the motions of the heart; one of contraction, the other of dilatation; the period of rest mentioned by writers does not exist; contraction succeeds *immediately* on dilatation, and *vice versa*.

4. The question relative to the order in which the motions of the heart take place, *i. e.* whether the auricles contract before the ventricles, or the latter before the auricles, has no meaning when applied to the naked heart. The motions take place alternately, like the vibrations of a pendulum, and it is impossible to say which takes place first.

5. The time occupied by the contraction of the ventricles is double the time of their dilatation; if we divide the total duration of the systole and diastole of the ventricles into three equal periods, we shall have two periods for the contraction, and one for the dilatation; for the auricles, we have two periods for the dilatation, and one for the contraction.

6. During contraction the ventricles become pale, their surface is folded and crisped up like dried parchment; the superficial veins swell; the fleshy columns of the right ventricle are prominent, and the circular fibres at the point of the heart are more readily seen; the ventricles become shortened in every direction, but more apparently in the vertical one, because it is the greater of the two; the point of the heart, also, at the moment of contraction, describes a spiral movement, from right to left, and from behind forwards.

7. It is on this spiral motion, which is slow and gradual, that the shock of the point of the heart against the walls of the chest depends; the ventricular systole is not accompanied, as I had always previously thought, by a forward movement of the heart; it is this spiral motion which produces the shock.

8. The diastole of the heart occurs in a sudden, sharp manner; it is so quick and energetic, that,

at first sight, one would suppose that it was the active motion; it is difficult to imagine how powerful this act of dilatation is; the hand which grasps the ventricles is forcibly opened by it.

9. The dilatation of the ventricles is accompanied by a projection of the heart downwards, and this is so great, that at first I thought the heart must strike against the chest during this dilatation; but on more careful examination, I was convinced that the shock takes place towards the end of the ventricular contraction.

10. The dilatation of the auricles is also sudden, but is regulated by the duration of the ventricular systole; the contraction of the auricles, on the other hand, is as short as the diastole of the ventricles.

11. During its dilatation the right auricle seems ready to burst, so distended is it, and so thin are the parietes; the left auricle does not present the same appearance in so marked a manner.

Sounds of the heart.

1. On applying the ear to the heart the double sound is heard, but the first sound is much more feeble than when it is heard through the walls of the chest. Hence it is clear that the cause of these sounds is inherent in the heart, but that the first one is rendered more intense by the walls of the thorax.

2. This double sound gradually increases as we ascend from the apex of the heart towards its base, and *vice versâ*; hence it is evident that we must seek for the cause of the sounds at the base of the organ.

3. On applying the finger over the root of the pulmonary artery, we feel most distinctly a vibratory thrill, which corresponds with the collapse of the artery and the dilatation of the ventricles; it was feeble during the contraction of the ventricles, and consequent dilatation of the vessel.

4. On what does this vibratory thrill depend? Being unable to apply the ear immediately to this point, I bethought myself of employing the index finger as a stethoscope, and on applying the ear to the finger I heard a distinct *bruit de claquement*. This experiment I repeated several times with the same result.

5. I sought in vain for any double sound; there was one clear sound only which coincided with the collapse of the artery, and consequently with expansion of the sygmoid valves by the column of blood.

6. The cause of the second sound of the heart, evidently, then, depends on the vibratory thrill of the aortic and pulmonary valves, which are struck by the column of blood rushing back during collapse of the artery; the sound coincided with dilatation of the ventricle, and like it was short.

7. It now remained to determine the cause of the first sound of the heart. Being prepossessed with the idea that this sound depended on the auriculo-ventricular valves, I passed my finger over every point of the base of the heart, in search of a vibratory thrill, analogous to that emanating from the sygmoid valves; but nothing could be discovered by the finger or ear, and repeated trials convinced me that the mitral and tricuspid valves had nothing to say to the production of this sound.

8. It now suddenly occurred to me that the first sound might depend on the same cause as the se-

cond, and be explained by the shutting of the sygmoid valves as the column of blood rushes from the heart into the great vessels. This idea seems to be confirmed by the following reasons:—1. The maximum of intensity of the first sound occupied the same point as that of the second. 2. The first sound was exactly of the same nature as the second, and only differed from it in intensity and duration. 3. If the first sound, like the second, depend on the sygmoid valves, it follows that all diseases of these valves must affect the two sounds; now this constantly takes place. In all the cases which I have examined relative to this point, it is mentioned that both sounds were altered; I speak, of course, of cases where the auriculo-ventricular valves remained normal. 4. We must not be surprised that the motions of the auriculo-ventricular valves are unaccompanied by any sound, since they are bound down so closely by the *corde tendinæ*; besides, the ventricles contract slowly, the apex of the heart ascends gradually towards the base, and hence the auriculo-ventricular valves also ascend slowly, and without vibration. Besides, it is evident that in cases where these valves are thickened and vibration ensues, the sound must be confounded with that of the sygmoid valves. 5. But the following objection may be raised; if the sounds of the heart are caused by the sygmoid valves, why should the maximum intensity of the first sound exist at the apex, and not at the base, on a level with these valves? It is true, that when the heart contracts powerfully and throws the apex with force against the walls of the chest, that we have the maximum intensity at the apex; but when the organ pulsates feebly and the shock is weak, then we have the loudest sound behind the sternum, on a level with the roots of the aorta and pulmonary artery. It should not be forgotten that the first sound is a compound of two, viz. the valvular bruit, and that produced by the shock of the heart's apex, and hence in *anæmia*, *chlorosis*, and certain organic diseases of the heart, the first sound is so intense that it completely masks the second in some cases. Were the diaphragm composed of cartilage or bone, and thus resonant, we would hear the second sound most distinctly over the ensiform cartilage, during the diastole of the heart.

Conclusions.

It seems to result from the preceding observations, that the two sounds of the heart arise at the roots of the aorta and pulmonary artery, and depend on the motions of the sygmoid valves; that the first sound which corresponds to contraction of the ventricles depends on the depression of the sygmoid valves; that the second sound, accompanying the dilatation of the ventricles, is caused by the spreading out or expansion of the same valves by the retrograde column of blood.—*Gaz. Med. No. 32.*

[In the sixth volume of the Transactions of the Provincial Medical and Surgical Association, Dr. O'Bryen of Bristol has described a case of partial ectopia of the heart, somewhat analogous to the interesting one of M. Cruveilhier, which we have related above. The conclusions deduced by Dr. O'Bryen are very similar to those drawn by M. Cruveilhier.

Three distinct motions are described;—1. Con-

traction, synchronous with the pulse in the carotids, and the first or ventricular sound. 2. Dilatation, during which the heart "was much enlarged by as active a force as that of contraction, (it was dilated even when by pressure we attempted to prevent it); whilst in the fingers, it gave a sensation as if it was first forcibly enlarged, and then a fluid rushed in, with one wave, communicating the feeling of a thrill. The dilatation was synchronous with the second or loud sound, but it appeared to continue after it." 3. During the systole, a third or downward movement of the whole tumor was observed, and this took place regularly and with considerable force.

"From the loud noise, or that caused by the reaction of the arteries on the blood expanding the semilunar valves, to the duller or that called ventricular, the space of time appeared to be about one-half of the whole time of the heart's action. The period of rest was all but imperceptible; indeed, it appeared inseparable from the dilatation and filling of the ventricles."

Finally, Dr. O'Bryen remarks, that no sound was produced by the contraction of the left ventricle, the sounds appearing to proceed from the neighbourhood of the valves.—*Eps.*]

CASE OF EXTRACTION OF A CALCULUS IN THE FEMALE.

By ROBERT STORRS, Esq.

SURGEON, DONCASTER.

(Read before the Meeting of the Provincial Medical and Surgical Association at York.)

ANN WALKINSON, of delicate constitution, mother of three children, aged 32, has suffered from difficulty of making water, and occasional stoppage of the stream, severe bearing-down pains afterwards, and other symptoms of stone, for six years, but until lately has always been considered to have had some tendency to prolapsus. About three months ago she parted with a small shell of calculus, since which her symptoms have been increased in severity. On my seeing her about this time, I considered her symptoms to be those of calculus, but, as she would not submit to an examination, I did not ascertain the fact until about a week ago, when I was sent for to her in a great hurry; she was in severe pain, and could, as she thought, feel the stone low down. I passed a catheter, and felt the stone distinctly, and as it seemed low down, I thought I could push it by a pair of dressing forceps. I introduced them, but could not bring it down. She was very anxious to have something done immediately: I, therefore, made her come to Doncaster, and on the following day I attempted extraction with an old-fashioned dilator and a pair of polypus forceps. I could easily push the stone, but had not power to bring it away.

On Friday, July 30, having obtained a screw dilator and forceps, with the assistance of Dr. Branson and Mr. Henry, I began its extraction. She was laid on a table with the breech over the edge, and the dilator introduced; the urethra was gradually expanded, and full dilation completed in less than ten minutes; during this time, however, she persisted that she should have a

stool, and obliged us to suspend the operation. She left the table, and had a motion; on her return the dilator was again applied, and dilatation completed in five minutes. The forceps were then introduced through the dilator, and the stone easily grasped, but it so frequently slipped away, that after a time we began to despair of accomplishing our object. Another pair of forceps were then tried, and easily passed through the dilated meatus; and after some difficulty, the stone repeatedly coming with its broad face foremost, it was at last brought away with the smaller end between the blades. It was of an ovoid flattened shape, and weighed two ounces and a half, avoirdupois; being hard, and composed of acid. There were only about six drachms of blood lost: at the time the urethra appeared entire, with the exception of the inner membrane, which was torn.

In the evening she seemed doing well, and passed a tolerable night; she made water several times, and could retain it easily, except when out of bed: the first discharge contained some blood, and but little afterwards.

July 31, 7 A.M. Pulse 108; urine freely voided; tongue clean and moist, but bright in the centre, no pain, no tympanitis. Ordered fomentations both to abdomen and pudenda.

12 A.M. Has just had a severe rigor, followed by pain in the abdomen, more tenderness, and some hardness. Pulse 128, soft and compressible; skin hot, great thirst. Ordered 8 leeches, and 5 grs. calomel, with 1 of opium.

Half past 3 P.M. Pulse 116, and soft; less pain and tenderness, less hardness; pain less; hot: once sick, of green and bilious matter. Feels very faint, and looks pale. Bran poultice.

10 P.M. Pulse 106. No pain: a little tenderness; has been sick, and urine has come away involuntarily.

August 1. Pulse 80. No pain, no tenderness; has had no motion, but urine has not been altogether retained. Ordered castor oil, six drachms.

8 P.M. Bowels have been freely moved; is in good spirits, and free from pain. Pulse 82.

August 2. She has passed a good night; urine has been freely evacuated twice, and none has come away involuntarily; it is slightly tinged with blood, and painful in passing.

ANALYSIS OF FOREIGN JOURNALS.

Journal des Connaissances Medico-Chirurgicales.
June and July, 1841.

THE original articles in these two numbers are—

1. On pneumonia in insane persons, by M. Thore.
2. Case of pulmonary consumption successfully treated, by M. Ponchet.
3. Case of pregnancy complicated with hydatids.
4. Two cases of Cesarean operation, one of which was successful.
5. On rheumatic enteritis, by M. Grifoulhiere.
6. On the state of the pulse in new-born infants, by M. Trousseau.

ON PNEUMONIA IN THE INSANE.

This is one of the most common and fatal diseases amongst insane persons, although it has been

overlooked or very lightly noticed by most of our standard writers on insanity; of seventy-six patients who died at Bicêtre during the year 1839, eleven were cut off by pneumonia.

The symptoms of this affection are frequently very obscure; there is hardly ever any cough or expectoration, and although dyspnoea exists more constantly, yet it is seldom carried to any excess; the face remains calm, and there is seldom the dilatation of the nostril which indicates so clearly an impediment in breathing; the number of inspirations varied from twenty to fifty; the latter was always a very bad symptom, and indicated a fatal termination.

The physical signs of pneumonia were, also, somewhat obscure. Bronchophony and bronchial respiration were frequently marked by sonorous râles; fine crepitant râle existed only in well-marked cases of pneumonia, occurring in patients whose mental state was not very unfavourable; all these cases recovered. On the other hand, the crepitant râle was never heard in any of the cases which, subsequently, had a fatal termination, but was replaced by dry or moist râles. Of the general symptoms, fever was the most constant; indeed, this one was never absent; the pulse ranged from 100 to 120; its acceleration was a very unfavourable sign; the skin was never very hot, and the red patches on the cheeks, so often seen in common pneumonia, were extremely rare. The state of the blood afforded no particular indication; it was commonly serous, and the clot soft. Anorexia was an important symptom, and whenever the appetite of an insane patient suddenly fails, attention should at once be directed to the state of his chest.

The low form of pneumonia was much more frequent than the inflammatory one. The prognosis of this disease is very unfavourable; its treatment must be regulated chiefly by the condition of the patient. In monomaniacs, in patients who are progressing towards a cure, or not very much deranged, we may employ blood-letting and tartar emetic; but, under opposite circumstances, abstraction of blood must not be thought of; even leeches or cupping produced, then, but little effect.

The impossibility of having recourse to blood-letting in the great majority of patients, rendered it necessary to employ tartar emetic, which succeeded in some dangerous cases, but, generally speaking, was unable to arrest the rapid progress of the disease. When it excited vomiting, the medicine seemed to have the best effects, and this is readily explained by the fact, that obstruction of the bronchiæ by mucus is one of the chief features of the pneumonia of the insane, as in that of old persons.

CASE OF PULMONARY CONSUMPTION CURED.

We give this interesting case without abbreviation. M. Bourret, thirty-six years of age, of strong constitution, was passionately addicted to sporting, which he pursued with ardour in the marshy grounds adjoining his dwelling. As he paid no attention to his health, he frequently suffered from attacks of bronchitis and cough. These were also neglected, and his next attack was one of severe dysentery. The chest affection nearly ceased during the existence of the bowel complaint, but as the latter disappeared, it became aggravated, and all the symptoms of pulmonary consumption soon showed themselves. When first

seen by M. Ponchet, the patient was greatly emaciated; he coughed incessantly; expectorated a quantity of thick mucus, with gray and yellow matter mixed up, of a very foetid odour; there were exacerbations every evening, and night sweats. On examining the chest by percussion, there was a dull sound below the third rib on the right side, and a distinct gurgling was heard, both here, under the axilla, and behind. There was great resonance, with pectoriloquy in the supra and infrascapular regions. Although the prognosis was extremely unfavourable, still we did not hesitate to employ the only treatment which seemed to afford some chance of success. Four large cauteries of caustic potass were applied, two under each clavicle, and two large Burgundy pitch plasters, powdered over with tartar emetic, were placed on the back of the chest, whilst a third plaster of the same kind covered its front.

During the first few days this treatment aggravated all the symptoms; there was constant and severe fever; after the lapse of a fortnight, however, the patient began gradually to improve, and a more nutritious diet was allowed; the man now slept a little during the night; the cough was less fatiguing; the gurgling sound began to diminish, but the expectoration and matity remained unchanged; pectoriloquy still existed under the clavicle. During the next ten weeks the cauteries and plaster were twice reapplied, and the improvement of the patient was now considerable; he coughed much less; was able to walk about; expectoration diminished in quantity; in two months more, his strength and flesh were completely restored, and he presented every appearance of perfect health, but still coughed a little.

On percussing the chest, a slight degree of dullness was found to exist at the lower and posterior part of the chest on the right side; the respiratory sounds were normal, except at this point, where there still remained a little crepitation; the man, however, was now able to work abroad; since then I have frequently seen him, and his health has continued uninterrupted.

This case, then, presents an unequivocal example of the cure of pulmonary consumption in its third stage, and it is the more remarkable since the same treatment was employed, about the same time, in seven other cases where the disease had made less progress, but no benefit whatever was obtained.

ON THE STATE OF THE PULSE IN INFANTS. BY M. TROUSSEAU.

A portion of the hospital Necker, set apart for the reception of nurses and infants, has for some time back been placed under the direction of M. Trousseau. One of the first points to which M. Trousseau turned his attention, was the state of the pulse in infants; the following are the results of his observations.

From the experiments of M. Jacquemier, made on infants of one day old, it would appear that the minimum of pulsations was 97; the maximum, 156; difference, 59; average, 126. According to Billiard, whose observations were made on 39 infants, of from one to ten days old, the pulse was in eighteen less than 80; in two, 86; in one, 89; in four, 100; in ten, 110 to 125; in one, 130; in two, 150; in one, 180. Hence, if we leave aside the three last cases, the pulse in infants of from

one to ten days old, gives a medium of 90. M. Valleix examined 13 infants of from one to ten days old, also; the minimum was 76; maximum, 104; difference, 28; average, 87; a result not very different from that of Billiard.

Thus it appears that, before birth, the medium pulse is about 133; at the moment of expulsion from the uterus, it falls to 83, but in a few minutes ascends again to 160, but during the course of the first day falls to 127; and during the next ten days it gradually falls to 87 or 90.

The observations of M. Trousseau were made on infants somewhat more advanced in life, and from them it would seem that the pulse becomes less variable, as the child gets older. It is unnecessary to mention that no children were examined, except those who presented every appearance of perfect health. The author divides his observations into two categories, one confined to the last six months of 1840, the other to the first six months of 1841.

Last semester of 1840.

Fifty-four infants, (27 male, 27 female,) aged from fifteen days to twenty-one months, were examined; they were divided into four classes; viz. 1st, from fifteen to thirty days old; 2nd, from one to three months; 3rd, from three to twelve months; 4th, from twelve to twenty-one months. In the first class, (6 male, 5 female,) the maximum pulse was 152; minimum, 120; difference, 32; mean, 135. Second class, (5m. 5f.,) maximum, 156; minimum, 108; difference, 48; mean, 132. Third class, (12 m. 16 f.,) maximum, 144; minimum, 112; difference, 44; mean, 120. Third class, (4 m. 1 f.,) maximum, 140; minimum, 92; difference, 48; mean, 125.

First semester of 1841.

One hundred and six infants were examined with great care and attention during this period; M. Trousseau furnishes all the details, but we can find room for his conclusions only.

Influence of age.

Age seems to exercise but little influence on the state of the pulse in infants; during the first month the mean is 137; second month, 132; from two to six months, 128; six to twelve, 120; twelve to twenty-one months, 118. The maximum frequency occurs during the first month, the minimum, towards the period of weaning. The difference of frequency, however, is not much, being only 19 in the males, and 13 in the females, and from the third month forwards little or no variation takes place.

Influence of sex.

During the first two months there is little or no difference of frequency between male and female infants; but after the third month, it assumes that character of greater frequency in the female, which distinguishes it during the rest of life.

The influence of the states of waking and sleeping is infinitely more marked; in infants of fifteen days to six months, the pulse during *sleep* was 121; during *waking*, 140; from six to twenty-one months, while asleep, the infant had 112 pulsations; while awake, 128; the difference is much greater when the child cries, is afraid, or struggles; the pulse will then mount from 112 to 160 or 180.

From the above observations, it follows that, in infants, during the first two weeks, the pulse may vary from 78 to 150; during the second fortnight, from 120 to 164; one to two months, from 96 to 132; two to six months, 100 to 162; six to twelve months, 100 to 160; twelve to twenty-one months, 96 to 140. These remarks show of how little value is the pulse as a sign of disease in infants.

PROVINCIAL

MEDICAL & SURGICAL JOURNAL.

SATURDAY, AUGUST 14, 1841.

WE have been, in no small degree, amused at the manner in which the coroner for Middlesex has undertaken, from time to time, (but especially within the last few weeks,) to instruct the members of the Provincial Association in duties of which, it would appear, they are either profoundly ignorant or culpably neglectful.

If we can believe the self-glorifications of the learned coroner, he is the only virtuous man in Gomorrah; the only one who has at heart the true interests of the medical profession; the only statesman capable of discovering a remedy for the numerous evils which beset us. His time and talents, the energies of his astute mind, his disinterested efforts, are devoted to the welfare of his medical brethren, and the advancement of medical science; whilst the Hastings and the Forbeses, the Barlows and the Kidds, the Provincial Medical Association and the great body of provincial medical practitioners, are intriguers, political quacks, men totally regardless of the true interests of a profession, with which they have been connected from infancy, and on which their social and material existence depends.

This is a pleasant, and withal an easy mode of becoming a patriot; to misrepresent motives, distort facts, vilify your adversary, and extol yourself, may suit the habitual associates of the worthy coroner, but we beg to assure him that "provincial practitioners" are not quite "so green and fresh" as to bow down before the dictatorial swagger of any adventurer. They have some confidence in their early associates and constant friends; they are not totally incapable of distinguishing right from wrong; they claim permission to think for themselves, and are foolish enough to imagine that they feel their own grievances; hence they may presume to reject the universal suffrage and ballot systems of the member

for Finsbury, and await with the utmost indifference the outpourings of his virtuous wrath.

"The incorporation of the whole profession" is one of the recent crotchets of the Editor of the *Lancet*; we must have an "incorporation," and because, forsooth, we ask what the meaning of this word "incorporation" is, because we are unwilling to swallow a political nostrum at the bidding of a medico-literary quack, without knowing its composition or virtues, and grievously mistrusting, as we do, the administrator, therefore are we to "receive the execrations of the reformers of York"—to be swept away by an incursion "of the men of the north"—to be reviled and spit upon by the Editor of the *Lancet*.

Again; the political feelings of the member for Finsbury lead him to conclude that universal suffrage, vote by ballot, and other fancies of the like kind, may be applied with advantage to the affairs of the medical profession; but many men of high standing and long experience think, that the turmoils of political contest are ill suited to the habits and pursuits of medical men; therefore are they mock-reformers, and Dubs—apostates, ready to sell their birthright for a mess of pottage. Existing institutions of all kinds are eye-sores in the sight of Mr. Wakley; he would eradicate them, root and branch, and raise up on their ruins some glorious superstructure of surpassing excellence, like the "London College of Medicine." A large and respectable body of provincial practitioners, however, still look with respect on these institutions, and would reform them if practicable, rather than attempt the somewhat hazardous experiment of erecting a second tower of Babel; but these men are sold to the College of Physicians; they are in league with the corruptionists to defraud and degrade their medical brethren; they are unworthy of confidence or respect—because they acknowledge not the yoke of our medical dictator. We shall, probably, be compelled to discuss this matter again, and afford further illustrations of the peculiar logic employed by our contemporary, in his dissertations on medical reform.

In the next number of this *Journal* we shall publish a complete and very extensive Report of the Ninth Anniversary Meeting of the Provincial Medical and Surgical Association. The great quantity of matter occupied by the reports of the various committees, and of the proceedings at the meeting, has rendered it impossible for us to prepare a full account at an earlier period.

INSPECTOR GENERAL OF PRISONS.

MR. FRANCIS WHITE, of Dublin, has been appointed Inspector-General of Prisons in Ireland, in the place of Major Woodward, deceased. We believe that a salary of 1,000*l.* per annum is attached to the office.

BRITISH ASSOCIATION.

THIS association has refused the sum of 15*l.*, demanded by the medical section, through its president, Dr. Roget, for the purpose of investigating some interesting points in the physiology of man, while 1,400*l.* have been bestowed upon the star-gazers.

PATHOLOGY OF INSANITY.

In a report recently addressed by Sir Alexander Morison to the governor of Bethlem Hospital, we find an account of the *post-mortem* appearances presented by the patients who died in the hospital during the last five years. The number of deaths amongst the females was nineteen; amongst the males, twelve.

MORBID APPEARANCES IN FEMALES.

CASE I.—No deviation from the normal condition of the brain and membranes observed except congestion of the blood-vessels, both external and internal; the cerebral substance, the ventricles, and the arachnoid, were perfectly healthy. The left lung was hepatized, and marks of disease were observed in the chest and abdomen.

CASE VII.—The blood-vessels of the brain and membranes turgid; the cellular texture of the pia mater on the convexities of the cerebral hemispheres largely infiltrated; the fluid in the lateral ventricles increased in quantity; there was much fluid in the cranium after the brain had been removed.

CASE VIII.—The convolutions of the cerebral hemispheres were partially flattened; the blood-vessels of the brain and membranes were loaded; when the dura mater was divided and detached, the subjacent membranes exhibited three or four small patches of a bright yellow discoloration, but no fluid could be squeezed out of them; the cut surfaces of the cerebral substance everywhere exhibited numerous bloody points; the lateral ventricles were distended with about two ounces of turbid fluid in each; there was thick yellow pus, about one or two tea-spoonfuls, in the bottom of the reflected horns of each ventricle; the lining membrane of the ventricles exhibited vascular ramifications and minute ecchymoses, and the arachnoid coat covering the pons varolii and neighbouring parts of the brain was thickened and opaque, and of a light yellow colour from purulent infiltration; the substance of the brain was soft, particularly around the ventricles and at the basis. The cause of these appearances is conceived by Mr. Lawrence, to whom I am in-

debted for the description of the morbid appearances, to have been acute inflammation of the lining membrane of the ventricles and of the arachnoid coat.

CASE XV.—Much blood escaped on dividing the integuments and sawing the skull, and the vessels of the brain and membranes were enlarged. Five or six quarts of fluid of a reddish colour were contained in the chest.

CASE XVII.—The blood-vessels of the brain and membranes were turgid; in other respects the contents of the cranium appeared healthy; marks of inflammation were visible in the pleura, in the cavity of which bloody fluid was contained.

CASE XVIII.—A large quantity of blood escaped from the vessels of the head in cutting the skin and sawing through the skull; the vessels of the brain were moderately injected, and there was slight serous infiltration of the pia mater; in other respects the contents of the cranium were perfectly healthy, as also those of the thorax and abdomen.

CASE XIX.—In this case there was general fulness of the blood-vessels; sections of the cerebral substances everywhere exhibiting numerous divided orifices; there was serous infiltration of the pia mater; at some points of the cerebral hemispheres the convolutions were shrunk so as to leave conspicuous intervals, which were occupied by the infiltrated pia mater; the substance of the brain appeared to be healthy and firm; the trachea and larynx, the contents of the chest, and of the abdomen, were all perfectly healthy, exhibiting no appearance to throw any light on the very sudden death of this patient, which it was imagined might have proceeded from an affection of the heart or some large blood-vessel.

MORBID APPEARANCES IN MALES.

CASE. III.—Remarkable turgidity of the blood-vessels, in the substance of the brain especially; the superior longitudinal sinus filled with a coagulum firmly adhering to its sides like a recent clot, at two or three points gradually changed into a dull reddish brown fluid, of the consistence of pus; a large vein about the middle of each hemisphere greatly distended, and filled with a fine coagulum, presenting at some points a similar fluid; this vein terminated at each side in the cavernous sinus; other veins were filled with firm coagula; a considerable ecchymosis of the pia mater, and slight infiltration of that coat. The lungs were in parts hepatized, and contained an abscess.

CASE V.—Blood-vessels of the brain and membranes turgid; numerous bloody points in the cerebral substance, and the medullary matter presenting here and there a faint violet tint; slight serous infiltration of the pia mater in the cerebral hemispheres; about an ounce of clear fluid in each lateral ventricle. The lungs were diseased.

CASE VI.—The blood-vessels of the brain and membranes extremely turgid; the cellular texture of the pia mater in a state of serous infiltration over the entire upper and lateral surfaces of the cerebral hemispheres; the lateral ventricles contained rather more than the normal quantity of fluid, and there was much fluid in the basis of the skull. Extensive hepatization, with a large abscess in the lungs.

CASE VII.—The arachnoid coat somewhat

thickened and opaque, and the pia mater considerably infiltrated over the cerebral hemispheres: the lateral ventricles enlarged, and filled with transparent fluid; a considerable quantity of fluid in the basis of the skull; no deviation from the healthy state observed in the substance of the brain.

CASE VIII.—The blood-vessels of the brain and membranes turgid; numerous bloody points appeared in every situation; the arachnoid coat thickened and partially opaque, especially along the edges of the fissure between the cerebral hemispheres; the cellular substance of the pia mater in the hemispheres considerably infiltrated. The structure of the brain appeared natural.

The mucous membrane of the trachea and bronchii of a bright red, and covered with a thick yellow secretion; the lungs adhered to the sides in several places; contained an abscess and an enlarged bronchial gland containing a substance like putty.

CASE X.—The blood-vessels of the brain and membranes were turgid; the arachnoid coat on the cerebral hemispheres was considerably thickened and opaque; there was great infiltration of the pia mater, and an increased quantity of fluid in the ventricles.

In constructing the above summary, (says Sir A. M.,) I have arranged the cases under the three divisions usually employed, which are those of general insanity, partial insanity, and deficiency of mind; these divisions may be described in a general way as follows.

In the first division, termed *Mania*, the ideas are erroneous, wandering, and incoherent, and not under control; but the mind, although deranged on all subjects, exhibits vigour and rapidity in its manifestations; the manners are excited, vehement, or violent.

In the second division, termed *Monomania*, the mind may appear to be vigorous, but it manifests deranged ideas not under its control; they are limited to or fixed on one or a few subjects, the patient appearing to be rational on all others; the manners are in conformity with the prevailing deranged manifestations, which may be ideas of pride, love, fear, or grief, or some other emotion or propensity.

In the third division, termed *Dementia* or *Fatuity*, there is deficiency or seeming abolition of mind; there is little or no memory, imagination, or judgment; the ideas that may appear are obscure, confused, and incoherent; indeed incoherence is the most prominent feature in dementia; the manners are undecided and silly; the patient appears childish, and is easily led: he is frequently ignorant of time, place, quantity, and value, and inattentive to personal propriety; and some are totally silent.

These three divisions appear, in many instances, well defined, in other instances they may be more or less combined with each other, or with other diseases, in particular with palsy or with epilepsy; these two combinations, viz. with palsy or epilepsy, and also congenital deficiency, to which the term idiocy or idiotism is applied, are excluded from Bethlehem by the rules of the hospital.

In all the cases, moral means have been employed; these include the removal of exciting causes; the classification of patients, the regulation of their diet, exercise, and sleep, of the visits

of friends, of employment, of amusements, and of religious communication; and protection from injuring themselves or others by occasional seclusion, or restraint of as mild a description and as short duration as possible, and over the application of which the strictest watch is kept.

In addition to these, which in the tables are included under the term of General Remedies, medical means suited to the nature of each case, and calculated to remove or relieve the constitutional disturbance with which the mental disorder may have been complicated, have been employed.

In some cases abstraction of blood has been made, very rarely by general blood-letting, more frequently by cupping, and by leeches applied on the head or neck, occasionally in the nostrils and about the pudenda.

Emetic medicines have very seldom been given with the view of producing vomiting; nauseating doses of tartarized antimony have been successful in many cases, in shortening the duration of violent excitement.

Purgative medicines, administered at intervals, have been much employed; these have been calomel, castor oil, colocynth, jalap, rhubarb, and senna, and occasionally croton oil, and oil of turpentine. Mild aperients have also been employed continuously, in particular aloes and sulphate of magnesia: the latter in peppermint or other distilled waters, and in infusion of roses or of gentian; and the former in the compound decoction of aloes, which in a considerable number of cases has been efficacious as an emmenagogue.

Diaphoretic and diuretic medicines have been prescribed in some cases: the acetate of ammonia, preparations of antimony, acetate and supertartrate of potass, guaiacum, nitrate of potass, and spirit of nitrous æther.

Antispasmodics have been given in some cases, viz. ammonia, camphor, galbanum, and valerian; and also sedatives, including preparations of digitalis, hyosciamus, morphia, and opium.

In a few instances a course of mercury has led to recovery: it has appeared to render the constitution susceptible of curative means previously ineffectual.

Cold lotions, consisting of alcohol or vinegar with water, have been applied to the shaved head, and ice has been applied to the same part in a cap made of India-rubber cloth, with the view of diminishing the increased heat of the head, warmth being at the same time applied to the lower extremities.

Extensive use has been made of the warm-bath both general and local, of the douche-bath, and of the shower-bath. The cold-bath has also been employed, but only as a medical agent—never as a punishment.

Counter-irritation and a discharge of serum or of pus have been produced by blisters applied, for the most part, on the nape of the neck,* by tartarized antimony combined with ointment, by setons, and in a few cases by issues made in the course of the sagittal suture by incision, and on the mastoid process of the temporal bone by caustic potass.

Strengthening remedies, including generous diet, wine and ale, and tonic medicines, consisting

of decoction of bark, sulphate of quinine, diluted sulphuric acid, and preparations of steel, have in many cases appeared to accelerate recovery.

When food has been obstinately refused by patients having a strong propensity to suicide, recourse has been had to the stomach-pump, and food and medicines have been introduced generally by the mouth, occasionally by the nostril, and in various instances life has been preserved by these means, and a cure subsequently accomplished.

MEDICAL CLUBS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—In last week's number of your Journal, at page 352, I find a remark in the report of the Poor-law committee to the following effect. "In Mr. Copeman's (Medical Club) out of 229 subscribers, in less than nine months there were no fewer than 249 sick, that is, more than 145 per cent. of cases per annum. Yet did the deluded medical officer imagine that his statement could not fail to prove the prosperous condition of the club." Now, since it must be very desirable, in estimating the efficiency of any plan of medical relief, to avoid statements that are inaccurate, I venture, through the medium of your valuable journal, to correct a material error in the above quotation, when it will appear that much of the delusion rests with those who have misinterpreted my original report to Dr. Kay. At the period mentioned, namely, nine months from the commencement of the Coltishall Club, the number of subscribers, was, as stated, 229; but these subscribers were heads of families, and the total number entitled to relief by their subscriptions, including their wives and children, was 772. Thus, instead of the proportion of sick being 145 per cent. it was only about 33 per cent.; a very important difference in estimating the success of the club.

The Coltishall Medical Club is still in existence, and the number of persons at the present time entitled to relief by voluntary subscription amounts to 1,065. The subscribers are labourers earning less than 21s. a week. There is also an honorary subscription of upwards of 46l. a year from the neighbouring gentry, forming a fund for the benefit of the free subscribers, in providing trusses, instruments for distortions, wine, broth, &c. when required.

Whilst medical relief remains under such restrictions as are imposed, or were intended to be imposed, by the present poor-law, I cannot consider such institutions as the above either useless or deserving the reprobation of the profession; and for a union surgeon to attend the whole labouring population of his district without an increase in the salaries now given by the unions would be impossible. Nevertheless, I am inclined to the belief, that it would be better so to alter the present system, that labourers, and persons not in a situation to pay for medical attendance, should be provided with it by the unions, without being called upon to pay even the small sum out of their hard-earned wages required to constitute them members of a medical club.

* When a patient is disposed to remove a plaster, I have found the application of acetum cantharidis with a camel's-hair brush answer the purpose of a blister.

The 'labours of the Poor-law committee of the Provincial Association are highly praiseworthy; may they be the means of producing an alteration in the present state of things more advantageous and satisfactory to all parties concerned.

Your obedient servant,

E. COPEMAN.

*Coltishall, near Norwich,
August 3, 1841.*

CASE OF IMPERFORATE ANUS, WITH ABSENCE OF THE RECTUM, IN WHICH THE COLON OPENED INTO THE SUPERIOR FUNDUS OF THE BLADDER.—BY M. DUBREUILH.

On the 9th of February, a woman was delivered when 7½ months pregnant. The child, which laboured under imperforate anus and phimosi, readily drank some sugar and water. On the 10th, no urine had been passed—the abdomen was tense—some greenish matter was vomited, unmixed with anything resembling meconium. In the evening a few drops of milky fluid escaped from the urethra. In the situation where the anus should have existed, a soft point, with some sense of fluctuation, was detected; and on the 11th, an incision was made in this situation to the depth of twelve millimetres; but the bottom of the wound, when examined, afforded everywhere a hard, resisting sensation, and no fecal matter, whether solid or fluid, found exit. In the evening there was a copious flow of transparent urine; and, on the morning of the 12th, the prepuce was found covered with a greenish matter, which was recognised as the meconium; whence it was concluded that the great intestine communicated with the bladder, in what situation, however, could not be determined. On withdrawing a tent of lint from the wound in the perineum, a few bubbles of gas escaped, which led to the hope that the rectum had been opened; prepared sponge was placed in the wound with the view of dilating it.

The following days the child vomited frequently, and the abdomen became distended; the distension, however, occasionally becoming diminished; the urine was clear and limpid: but some meconium daily passed away by the urethra. On the 19th the child died, having thus lived ten days.

Post-mortem examination.

The abdomen was tense; the peritoneum, epiploon, and intestines were red, and the convolutions of the latter adhered to each other by means of false membranes. On following the colon, it was found that the rectum was altogether deficient; while the colon, running exactly along the linea alba, terminated in the summit of the bladder, which was about the size of a hen-egg. A probe passed along the urethra entered the colon through the bladder; the opening between the bladder and colon was 12 millimetres in diameter. The bladder was full of yellow fecal matter; its mucous membrane was of a reddish brown colour, and its parietes two millimetres in thickness. The ureters could not be discovered; the urethra was natural: the parietes of the colon, in the vicinity of, and for some distance above the bladder, were thin and transparent, but of natural thickness in the rest of their extent.—*Journal de la Société de Med. de Bourdeaux and Med. Press.*

ARTIFICIAL ABORTION IN A CASE OF EXTRA-UTERINE PREGNANCY.—BY PROFESSOR RITGEN.

A woman, aged 32, May, 1834, was attacked with vomiting and pain in the abdomen, especially at the right side corresponding to the ovary, in which situation a tumor was soon perceived; at first the size of an orange, it, in six weeks, attained the size of an infant's head. The pain extended to the back down the right thigh, and daily augmented, so that the patient was finally deprived of sleep; she was frequently constipated, and there was fever, thirst, subsequently jaundice, and, at length, slight anasarca. M. Ritgen saw the patient on the 42d day of her illness, and learned that she was large and well made, and had already borne three children without the slightest accident.

The woman considered herself pregnant from the menses being suppressed for eleven weeks, and from other symptoms similar to those which she had previously experienced. The tumor was so large that it could not be covered with the open hand; the pain was augmented by slight, dispelled by firm, pressure. The right side of the face was more œdematous than the left; the right pupil was contracted, and the entire right eye seemed smaller than the opposite one; there was a general and decided sensation of uneasiness throughout the entire right side of the body. The liver appeared to be in a natural condition. The pulse was frequent—the skin hot and dry—thirst considerable—a yellow coating on the tongue—no appetite. On examination per vaginam, the orifice of the uterus was found on the left side; the inferior fundus of the organ was but little developed: and in the cul de sac of the vagina, on the right side, could be felt a tumor situated rather high up above the uterus, and which manifestly changed its position when the tumor in the right groin was moved. The finger being introduced into the rectum, the tumor was equally felt, situated at the right side above the uterus, which latter organ was but little increased in size. No discharge had occurred from the vagina for the space of three months. There had been constipation for twelve days, and the transverse colon could be traced beneath the integuments. These symptoms led to the conclusion that there was a fetus in the Fallopian tube—a diagnosis which was confirmed by auscultation affording a bruit de soufflet isochronous with the pulsations of the heart. The tumor seemed disposed to open, and was covered with narcotic cataplasms, and a seton inserted in its vicinity. With a view of producing absorption, sulphate of soda was given in an oily emulsion, and subsequently pills of ergot of rye, and watery extract of aloes, were administered. In twenty-four hours the pain in the tumor disappeared, and, on the third day, the patient was able to sleep. The pills at first caused vomiting; but, after some time, contractions commenced in the tumor and uterus; a sanguineous discharge appeared from the vagina, and in twelve hours the bowels were opened. The sanguineous discharge augmented gradually, and at length clots of blood appeared, which, being carefully collected and washed, on the third day, some of them were found to contain flocculent fragments of a tissue similar to that of the caducous membrane, and subse-

quently portions of the chorion were discovered; but no other indications of an embryo were detected. On the fourth day the tumor was considerably diminished in size, but did not completely disappear for a year and a half; and there was a discharge of blood constantly during nine months. The bruit de soufflet diminished the first few days, and vanished at the expiration of three weeks. The ergot of rye and aloes were continued only three days, the glauber salts for eight. The woman is now well, and has not again become pregnant.—*Ibid.*

VEGETABLE ORIGIN OF TINEA.

In our last number we mentioned the discovery of the vegetable origin of tinea capitis, by M. Gruby. Since then, M. Gruby has examined the vegetable in various ways; when submitted to heat, it burns with a red flame, and gives out an odour of burned bread; in a solution of subcarbonate of potash it becomes more flexible, without undergoing any change of form; it is dissolved by the tincture of iodine, and coagulates or contracts when a drop of acetic acid is added. M. Gruby has succeeded in inoculating this mycoderma on cryptogamic plants, and has thus transmitted a disease from man to vegetables, but was successful only once in 76 experiments. He also attempted to inoculate tinea capitis, by placing the vegetable in an incision made on the arm, but this experiment failed.

SUBCUTANEOUS OPERATION FOR HERNIA.

M. GUERIN has recently applied this method to a case of strangulated inguinal hernia; the hernia was congenital, and had been strangulated for three days: the usual means of reduction were employed without avail, and the tumor was beginning to inflame. M. Guerin divided the two rings, and the antero-superior wall of the canal underneath the skin, and immediately returned the hernia (epiploon) into the abdomen. Not the slightest symptom of inflammation occurred, and the patient was able to get up on the eighth day.—*Gaz. Med.*

DEATH OF M. SANSON.

WITH great regret we have to announce the death of M. Sanson, professor of clinical surgery to the Faculty of Medicine at Paris, which took place on the 1st of August. M. Sanson was born at Paris, on the 24th of January, 1790; in 1805 he was elected *externe* at the Hôtel-dieu, and was soon chosen by Dupuytren as demonstrator; in 1813 he joined the "old guard," and from the sufferings which he underwent during the campaign in Saxony, aggravated by fatigue and labour at the battle of Waterloo, he became subject to attacks of rheumatism, which continued during the rest of his life. After the abdication of the Emperor, M. Sanson returned to Paris, and devoted himself, exclusively, to the duties of his profession.

In 1825 he became one of the surgeons of the

Hôtel-dieu; in 1836 was elected professor of clinical surgery to the Faculty of Medicine.

As practitioner and professor, M. Sanson was one of the most solid ornaments of French surgery, and had his health permitted, might have aspired to fill the place even of a Dupuytren.

ANTIDOTE TO THE "SALTS OF COPPER,

By M. BENOIST.

LIQUID albumen is generally administered as an antidote in cases of poisoning with the salts of copper, but it has this disadvantage, that, as we are unacquainted with the exact quantity necessary to neutralize the copper, if we employ too great a quantity, the poison is dissolved in the excess of albumen. To remedy this inconvenience M. Benoist proposes to substitute for albumen a solution of carbonate of soda, which forms with the salts of copper an insoluble carbonate, having no deleterious action on the economy.—*Journ. de Chimie.*

TREATMENT OF TINEA CAPITIS.

THE following are the formulæ commonly employed by M. Casenave in the treatment of this disease at the hospital of St. Louis.

Ioduret of sulphur ointment.

Ioduret of sulphur, 1 scruple.
Lard, 30 scruples.

Depilatory ointment.

Subcarbonate of soda, 8 scruples.
Lime, 4 scruples.
Lard, 30 scruples.

Pitch ointment.

Citrine ointment, 15 scruples.
Pitch ointment, 30 scruples.
Or, powdered pepper, 2 to 4 scruples.
Lard, 30 scruples.

The ointment is applied every evening: in the morning the head is washed with the following lotion:

Subcarbonate of potash, 8 scruples.
Distilled water, 500 scruples.

Journal de Med. Prac.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Friday, August 6, 1841.—Jonathan Wilson, Lawry John Monteith, Adam Gordon, William Augustus Loy, Joseph Walmsley, Charles M'Shane, James Atkin, Samuel Payne Chennell, Graham Lacon, Richard Dawson, Annerly Allcock.

Printed by THOMAS IBOTSON, of 105, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JOSIAH PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMSEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, August 13, 1841.

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ANNIVERSARY MEETING OF THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION,

On Wednesday and Thursday, 4th and 5th of August.

THIS Association held its Ninth Anniversary at York. There was a numerous attendance of members, and of eminent provincial practitioners from all parts of the kingdom, among whom were the following:—Dr. Holme, Manchester; Dr. Barlow, Bath, and Dr. Jeffreys, Liverpool, Vice-Presidents; Dr. Goldie, York, President elect; Dr. Hastings, Worcester, Secretary; Dr. Fisher, Fellow of Downing College, Cambridge; Dr. Maunsell, Dublin; Dr. Simpson, York; Mr. Caleb Williams, Mr. Brown, and Mr. James Allen, York; Mr. Barnett, Stourport; Dr. Belcombe, York; Mr. Abbey, York; Mr. Griffith, Wrexham; Sir Arnold J. Knight, M.D., Sheffield; Mr. Hodgson, Acomb, near York; Mr. Thurnam, Resident Surgeon of the Retreat, York; Dr. Begley, Hanwell; Dr. W. Conolly, Cheltenham; Dr. Webster, Dulwich; Dr. Black, Manchester; Mr. Lambert, Thirsk; Mr. Brunton, York; Mr. Ceely, Aylesbury; Mr. Crang, Tinsbury, Somerset; Mr. Barker, York; Dr. Brown, Sunderland; Dr. Colledge, from China; Mr. Jordan, Manchester; Mr. Smith, Patrington, near Hull; Mr. Matterson, Jun., York; Mr. Booth Eddison, Nottingham; Mr. Keyworth, York; Dr. Morris, York; Mr. Ness, Helmsley; Dr. Streeten, Worcester; Mr. R. Hey, York; Mr. Newnham, Farnham; Mr. Norman, Bath; Dr. Routh, York; Dr. Wake, York; Mr. Oswald Allen, York; Mr. Plant, Manchester; Mr. Davey, Beccles; Mr. Cooper, Hull; Mr. R. S. Fielding, Riccall, near York; Mr. Dolman, York; Mr. T. M. Cole, Kirby-Moorside; Mr. Garlick, Leeds; Dr. Robertson, Northampton; Dr. Watmouth, Pocklington; Mr. Hornby, Pocklington; Mr. Hare, Leeds; Mr. Hemingway, Dewsbury; Dr. Lyon, Manchester; Dr. Theodore Boisragon, London; Dr. Marchant, Hemsworth; Dr. Worllam, Mexborough; Mr. Jackson, Sheffield; Mr. Reed, York County Hospital; Mr. B. Dodsworth, York; Mr. Salmon, London; Dr. Outhwaite, Bradford; Dr. Borton, Malton; Mr. Workman, Basingstoke; Mr. Samuel Smith, Leeds; Mr. Thomas, Sheffield; Dr. Smart, Hatton Bushel, near Scarborough; Mr. Storrs, Doncaster; Mr. Price, Leeds; Mr. Husband, York; Mr. G. Clark, York; Dr. Bompas, Bristol; Mr. Bottomley, Croydon; Mr. Powell, Knaresborough; Mr. Isaac Newton, Jun., Knaresborough; Mr. W. S. Clark, York; Mr. Toogood, Bridgewater; Mr. Jackson, Sheffield; Dr. Allison, Kilham; Mr. Jubb, Halifax; Mr. Dickson, Elvington, near York; Mr. Henry Russell, York; Mr. Wightman, Cawood; Mr. Wilcocks, Hovingham; Dr. Bennett, Harrowgate; Mr.

Champney, York; Mr. W. Hey, Jun., Leeds; Mr. Wallis, Hull; Mr. E. T. Allen, York; Mr. Shearman, Rotherham.

The visitors present were:—Dr. Marshall Hall, London; Professor Carlisle Williams, Dublin; Dr. Barton, Raseen, Lincolnshire; Mr. W. J. Lambert, Thirsk; Mr. Paine, Farnham; Mr. Robertson, Kirby-Moorside; Dr. Chase, Ripon; Mr. Payne, Loxley; Dr. Newmarsh, Calcutta; Dr. Fitzroy Colclough, York Barracks; Mr. Jefferson, Market Weighton; Mr. W. Anderson, York.

Letters were received by the President and Dr. Hastings, from the following gentlemen, expressing their regret at being unable to attend:—Dr. Forbes, London; Dr. Barnes, Carlisle; Dr. Prichard, Bristol; Dr. J. Conolly, Hanwell; Dr. J. C. Williams, Nottingham; Dr. Luard, Leamington; Dr. Henry Johnson, Shrewsbury; Dr. Charlton, Newcastle; Mr. Jones, Leamington; Dr. Hopper, Leeds; Dr. Walker, Huddersfield; Dr. J. L. Bardsley, Manchester; Dr. Scholefield, Doncaster.

The preparatory meeting of the Council was held at the Museum on Tuesday, when the preliminaries to the general business of the various meetings were arranged.

THE FIRST GENERAL MEETING

was held on Wednesday, at one o'clock, at the Theatre of the Museum. Deputations were in attendance from the following medical bodies:—The British Medical Association, represented by Dr. Webster, Dr. Marshall Hall, and Mr. Bottomley of Croydon; the North of England Association, by Dr. Brown of Sunderland; the Irish Association, by Dr. Maunsell and Professor Williams.

The retiring President, Dr. Steed of Southampton, was unavoidably precluded from attending, owing to a heavy domestic affliction; the chair was consequently taken by Dr. Barlow of Bath, who *pro forma* vacated it on his behalf, to give place to Dr. Goldie of York, the President elect.

Dr. Goldie, on taking the chair, observed, that their excellent friend and vice-president, Dr. Barlow, had stated to them that Dr. Steed was unavoidably absent on that occasion. It was with very deep regret that he (Dr. Goldie) communicated it to the meeting that a severe domestic affliction had been the cause of Dr. Steed's absence. Under these circumstances he was persuaded that they would all feel that they owed the deepest sympathy towards him, and that under happier circumstances they would hope to see him again amongst them. It was with sincere and heartfelt pleasure that he congratulated them on the increasing prosperity of their great and flourishing association. He (Dr. Goldie) expressed the pride he felt at having been called upon to preside over the

ninth anniversary meeting of that association; he felt great pride and satisfaction that the place fixed upon for holding that meeting should be the city in which they were now assembled. He begged leave, therefore, most cordially, on behalf of their professional brethren in York and himself, to welcome within the precincts of the city the numerous assembly which he saw before him, and to request them to accept his cordial thanks for the honour they had done to the city in fixing upon it as the place of meeting on that occasion. He would assure them that no exertion had been wanting on the part of the medical profession in the city to ensure the success of the first meeting of this association within its walls, and to give the most suitable reception to those kind guests who had attended at their own inconvenience, and at a sacrifice of professional emolument. In their endeavours to give adequate reception to the members of the association, it was only justice to say, that they had been cordially seconded by the public officers of the city, and also by the institution in whose walls they were then assembled. Their especial thanks were due to the chief magistrate of this city. His lordship had most promptly given up to them the use of the Guildhall for those festivities which formed no unimportant part of the proceedings at their anniversary. He also passed an eulogium on the Yorkshire Philosophical Society, for the promptitude which they had evinced in allowing them the use of that room, and he stated that every gratification which the collection the museum contained would be afforded them. The sub-curator, Mr. Baines, would, when the meeting was over, be happy to show the members of the association any part of the collection in the museum, in which they might feel particularly interested. He (Dr. Goldie) was also authorised to say that like facilities would be afforded to those gentlemen whose time and leisure would enable them to visit the other institutions which the city contained, whether of a purely medical, scientific, or benevolent kind. The County Hospital was an old building, erected nearly a century ago, and it was deficient in those modern improvements with which such establishments are generally furnished, but it was intended to erect an hospital more suitable for the purposes of the institution. He next stated that the lunatic asylums would probably interest most members of the association, and he was justified in saying that the medical officers and others connected with those institutions would be extremely happy to be honoured with a visit from them, if they felt an interest in those institutions and in the treatment of insanity. Dr. Belcombe, Dr. Wake, Mr. Thurman, and Mr. Williams, were the medical officers of these institutions, and in addition to these, Mr. Allis, of the Retreat, would be happy to give every facility to those who should pay a visit to that institution. There was also the school for the blind, and the officers of that institution also would be happy to give every information respecting it. He should detain them as briefly as possible, as it was desirable that they should proceed with the dispatch of the multifarious and important business they would have to transact during the two days' meetings. He then noticed that reports would be read by the secretaries on important subjects, which would claim their especial attention. He expected that some discussion would arise on the several questions brought before them, but he felt per-

suaded that those discussions would be conducted with that good feeling in which the proceedings of the association had been invariably conducted. He mentioned some of the subjects contained in the report which we have given below, and among these he alluded to the question of medical reform. What the council had done during the past year on the subject of medical reform would be fully laid before them, and the special report of the reform committee would state to them the views of that committee, sanctioned by the approbation of the council, as to the course which it was expedient for the association to assume under present circumstances. In calling upon them to give their calm and deliberate attention to this subject, he advised the meeting not to take a rash and precipitate course, but to steadily pursue that course which they thought right and just. (Applause.) He concluded by alluding to the high honour they had conferred upon him by elevating him to that chair. He promised to acquit himself to the best of his ability, and he requested from them their indulgence and support, and he hoped to discharge the duties which devolved upon him, in a manner not only creditable to himself, but worthy of the distinguished assembly over which he had been called to preside. (Loud applause.) There were two subjects which he wished to mention to the meeting: Mr. Jones of Leamington, had written to him, requesting his permission to lay before the members a small work published on medical education, copies of which would be found in the library. He also mentioned that Dr. Jeffreys would produce a vegetable remedial agent from South America, and those gentlemen who took specimens were requested to put down their names, so that it might be known who had taken them.

Before sitting down, the President called upon Dr. Jeffreys of Liverpool, who then directed the attention of the members present, and of the profession at large, to the use of an astringent vegetable (*matico*) imported from South America, and of which he had received some specimens. For two or three years he had been endeavouring to obtain them; and some time ago, having received some which he thought to be genuine, he had distributed them among the profession; but they subsequently turned out to be spurious. Within the last few days, at the branch meeting at Newton, he had obtained specimens of the genuine species from a merchant, which was owing to an accidental report of some proceedings appearing in the papers. It appeared that two species were imported—the green and the ripe, the latter of which he had received, as was proved by the appearance of the seeds. The plant was well known in South America and in Belgium, and a short account of it had appeared in the *Lancet* of January, 1839; its powers as a styptic were very great, and he wished that any members who availed themselves of the specimens to make experiments, would favour him with the results. It was said to be used successfully in venereal cases, and it had been mentioned by French and other authors, as applicable to a variety of complaints. In South America it was called *yerba soldado*, and its virtues were discovered quite by accident: as a wounded soldier lay on the turf, in the agony of his pain he seized a quantity of grass around him, and stuffed it into his wounds; in the grass was a quantity of this herb, and the soldier's recovery

was so facilitated, that in a short time he got strong, and was enabled to proceed to a neighbouring cottage. Since that incident, the herb had been applied both externally and internally as common tea, in which case the infusion should be about one ounce of the plant to a pint of water. Great quantities of the plant were now imported, and he recommended it to the particular notice of the profession, and distributed packets among those gentlemen who wished to avail themselves of its use.

Dr. Hastings next read

THE REPORT OF THE COUNCIL.

The Council have again the high gratification of assuring the members that they have every reason to consider the affairs of the association in a flourishing condition; that, during the year that has passed away, the objects for which the association was originally instituted have been steadily pursued; and that there is hitherto no reason to anticipate that the zeal, by which the society has been in so short a period brought into so efficient a state, will at all decline.

Members.

The number of members is now 1,250.

District Branches.

Your Council have to announce that the East York Medical Association, at their late anniversary meeting, unanimously passed a resolution to form themselves into a branch of the association, which resolution has been carried into effect.

Transactions.

Since the last anniversary the society has published its Ninth Volume of Transactions; and this volume is devoted to subjects which are of very considerable moment. The medical topography of Shrewsbury and its neighbourhood is therein illustrated, and thus a very considerable district in the midland counties has been added to those which had previously been mapped out in the preceding volumes. The council cannot avoid remarking that they attach a high value to the continuation of essays of this nature, as the means of gradually accumulating a medical history of every part of England in their Transactions. It is not too much to say that this attempt has not before been made in this country; and its obvious utility strongly enforces it upon the enlightened investigator of the laws which govern health and disease in various localities. No other channel of publication can be so convenient for these topographical memoirs as the Transactions, and it is on that account very desirable that nothing should occur to prevent this work being continued. It has, however, been remarked, in reference to some of the papers that have been published, that it would be desirable to have a quicker means of communication than is supplied by the annual volume. This consideration has for some time been present to your Council, and they have long been of opinion that a weekly periodical journal, in connexion with the association, would form an appropriate vehicle for these communications. The expense incident to such an undertaking has been the great obstacle to making this attempt, although its manifold advantages were strongly felt

by the council. They could not conceal the fact, that a periodical publication, which would bring the members of the association into weekly communication, and afford a powerful organ through which their opinions might be heard when occasion required, would be highly advantageous, by combining their exertions and concentrating their opinions. The Council, therefore, have much gratification in announcing to the members, that they have for some time been engaged in endeavouring to mature a plan, by which every member of the association, whose subscription is not in arrear, will receive every week, without any additional subscription to the guinea which has been annually paid, a copy of the Provincial Journal. Should this plan be finally adopted, this Journal will be published under the sanction and control of the Council, and the communications sent to the Council will be published in the Journal, unless they are such as to require coloured drawings for their illustration, or are, from their nature or extent, inappropriate to a weekly journal; in which event they will, as heretofore, appear in the Transactions, as will, also, the future memoirs on medical topography. It is hoped, therefore, that the members generally will give every encouragement to this new undertaking of the association, especially by sending papers to it.

Finances.

The finances continue in a prosperous state; and although the expenses this year have, from various causes, been very heavy, there is a considerable balance in favour of the society.

The income amounts to . £1,440 8 5

The expenditure amounts to 858 7 5

The balance is . £582 1 0

Parochial Medical Relief.

Your Council have been much engaged, during the present year, in endeavouring to obtain an alteration in the mode of parochial medical relief. On the approach of the last session of parliament it appeared to your council desirable to promote a general movement of the profession, in support of the clauses which Mr. Serjeant Talfourd proposed to introduce into the Government Poor-law Bill. Uniformity of opinion on this long-contested subject was, however, not easily to be attained; and it was not until the session had far advanced, and your Council had appointed special delegates to proceed to London, with power to make definitive arrangements; that a series of clauses was agreed upon for production in parliament. Petitions in favour of these clauses were immediately set on foot, and the form recommended by your Council very generally adopted. It is believed that in no previous session of parliament have a greater number of petitions been presented for an amendment of this department of poor-law administration. The result has been, that satisfactory indications of increased attention to the just requirements of the profession have been manifested by several leading members of the legislature, and no less than three distinct and somewhat different propositions relative to medical relief have been entered on the journals of the House of Commons: the first by Mr. Wakley, the second by

Mr. Law Hodges, and the third by Mr. Serjeant Talfourd; all of which, however, have been set aside for the present by the withdrawal of the Poor-law Amendment Bill. The peculiarities of these several propositions are discussed in a report of the Poor-law Committee, which will be laid before this meeting, when it is hoped that we may arrive at some decision relative to the course to be pursued preparatory to the re-introduction of the measure into the House of Commons. The Council are happy to avail themselves of this opportunity to express their sense of the obligation which the profession at large, and this association in particular, are under to Mr. Serjeant Talfourd, for his unwearied efforts to effect a satisfactory adjustment of this question.

Vaccination Section.

Since the last anniversary, the committee have received a German translation of the report on vaccination executed by the celebrated Professor Gmelin of Tubingen. The association have much reason to be gratified with the effects produced by this report, both in England and on the Continent; the facts and reasonings having carried conviction to many doubting minds, and removed the most formidable obstacles to vaccination.

The law founded on that report, though not all that could have been wished, is, nevertheless, capable, if duly carried out, of saving annually many thousand lives. There is reason to believe that the guardians of the poor, as well as many members of the profession, are, in numerous instances, zealously co-operating in this good work. It is well known that the former have not always treated medical men with respect or even justice; but it may be mentioned to the credit of one union, that the guardians refused to accept the lowest tender for vaccination, because they believed the terms proposed were insufficient and degrading to the profession. This fact naturally suggests the question how far medical men have themselves contributed to the indignities which they have received, by offering their services on terms unsuitable and unbecoming.

Empiricism.

Our indefatigable associate, Dr. Cowan, as chairman of the section on empiricism, has given assiduous attention to this subject, and will be prepared with a report upon it. This question is so intimately connected with that of medical reform, that your council have always considered that the best chance of diminishing the enormous extent to which empiricism, both in and out of the profession, prevails, is by elevating the character of the profession itself, and by enlightening the public mind, so as to enable the unprofessional person to distinguish between the educated practitioner and the pretending charlatan.

So far, therefore, as any legislative measure can be made applicable to the abatement of this evil, it seems manifest that it must be co-ordinate with that of medical reform, which, for the last twelve-month, has, more than in any other similar period, engrossed the consideration of the profession, and has at length forced itself on the attention of the medical corporations, and has been discussed within the Commons House of Parliament. Your

council, consequently, have necessarily been deeply interested in the proceedings; and it is incumbent upon them briefly to state their share in the attempt that has been made to effect an amelioration of the polity of the profession.

Medical Reform.

It should be borne in mind by the members, that at the anniversary meeting at Southampton, it was resolved,

"That the central council be empowered to act on behalf and in the name of the association, until the next anniversary meeting, in presenting petitions to parliament, or in such other procedures as circumstances may render necessary."

In fulfilment of the important trust thus reposed in them, the council have not failed to give their best consideration to any proposals that have been made for the advancement of medical reform; and on the 21st of November, 1840, they resolved,

"That it is expedient to appoint delegates on behalf of the association, to watch the progress of any measure having for its object medical reform, and to confer with delegates who may be appointed by other associations for a like purpose;" and, "that Dr. Forbes of London, and Dr. Barlow of Bath, be the said delegates."

The propriety of the above appointments was not only made clear to the council, in consequence of the known talents of the gentlemen appointed, and their practical acquaintance with the subject, but was also recommended by the circumstance that both of the associates were members of the committee appointed at several successive meetings to watch over the interests of the profession. There was, however, some difficulty in obtaining the consent of the parties to undertake the office; and Dr. Barlow stipulated that his attendance in London should be dispensed with, and that he should only be considered a consulting delegate.

A representation being made to the council that it would be expedient to appoint a larger number of delegates, especially as Dr. Barlow could not attend in London, they met on the 14th of December, and resolved to request Dr. Macartney, late of Dublin; Dr. Cowan of Reading, Dr. Hennis Green of London, Mr. Crosse of Norwich, Mr. Ceely of Aylesbury, and Mr. Wickham of Winchester, also to act as delegates at the approaching conference.

The secretaries wrote to these gentlemen, and conveyed to each of them the request of the council, and they consented to attend the conference; accordingly, on the 16th of January, 1841, the council resolved that the associates above-named be added to those before appointed, and that they be requested to attend in London.

As the time of the meeting of the conference approached, the council considered that it would be desirable to intimate to the delegates of the association, in some measure, what their deliberations opinion was on the subject of medical reform; but at the same time they were anxious to leave the delegates free to act as they might think fit. They, therefore, on the 30th of January, unanimously agreed to the following resolutions:—

"1st. This council are of opinion that existing institutions ought to be respected in the adjustment of the long-agitated question of medical reform.

"2nd. This council are not satisfied with any of the bills that have been hitherto brought forward.

"3rd. That a copy of the foregoing resolutions be sent to each of the delegates appointed by the council of this association."

Accordingly, all the delegates received the foregoing resolutions, and all, excepting Dr. Barlow and Mr. Crosse, attended the conference in London. The conference commenced on the 3rd of February, and several successive meetings were held, at which certain clauses were passed, that, it was understood, were to form the basis of a bill to be submitted to the House of Commons.

By the 22nd of February, the council received intimation, by letter, that four of the delegates, Dr. Macartney, Dr. Forbes, Dr. Cowan, and Dr. Hennis Green, wished to resign their offices; and thus only two delegates were left to represent the Provincial Association in the conference.

Under these circumstances, the council again met on the 23rd of February, to consult on further proceedings. They felt that they had a very important trust reposed in them, which they wished to discharge faithfully; and finding that the Provincial Association had not now, from the small number of its delegates, that weight in the conference to which the large number of its members entitled it, they considered that they should be forsaking the duty which they owed to the association, if they did not take care and guard them from being pledged to measures, which might be adopted by the conference, and which, although they might disapprove, they could not prevent. They therefore resolved,

"That this council do not consider that the Provincial Medical and Surgical Association is pledged to support the bill which may have passed the conference of the Medical Associations in London, since some of the delegates appointed by this association have not attended, and others have resigned, and the council are ignorant of the clauses of the proposed bill. That the resignation of the delegates be accepted, and that no other delegates be appointed. That this council are exceedingly anxious to do all in their power to assist in the settlement of the long-agitated question of medical reform, and will continue to meet at short intervals to give their best consideration to the subject."

The council met again on the subject on the 6th and on the 13th of March, and, after much deliberation, they resolved upon writing to the Medical Corporations in London, and informing them that the future proceedings of the council of the Provincial Medical and Surgical Association would depend in a considerable degree on the nature of the reforms proposed to be adopted by existing institutions.

The corporations, in replying to this communication, expressed their strong desire to redress the grievances of which the profession complained, and stated that they had several important alterations under consideration, but that their plans were not yet sufficiently matured to submit them to the council.

On the 3rd of April the council again met, to receive the replies from the corporations, and to take proceedings thereon, and resolved,

"That the council are of opinion, that no measure of reform can be satisfactory to the medical profession, which is not calculated fully to redress

the grievances complained of, as set forth in the report of the reform committee of the College of Physicians. That any measure which does not provide due protection to the members of the profession, will be defective and unsatisfactory. That no measure will meet the approbation of the profession at large which does not recognize the representative principle in the construction of the governing bodies. That a copy of the foregoing resolutions be sent to each of the three medical corporations."

To this communication your council have received no reply, and hitherto no public notification has been given of the plan of reform which the corporations intend to propose; and your council, therefore, are not by any means committed to any measures that may be brought forward by them.

It is manifest, that the present state of this question is such as to demand from the association the most careful and judicious management; and the future steps to be taken in pursuit of the highly desirable end we have in view, will require mature deliberation, and a comprehensive survey must be taken of the opinions and sentiments of all parties concerned. Your reform committee are prepared with a report, which your council do not hesitate to say will embrace all these considerations; and they recommend the members to give a careful perusal to this report before they make up their minds as to the course which this association should pursue, in endeavouring to obtain an improved system of medical polity.

Benevolent Fund.

The operations of the benevolent fund of the association have been suspended during the past year, in consequence of the resolution passed at Southampton, prohibiting the central committee from granting any future relief until the debt due to the donation fund shall be paid off, and a sum of 100*l.*, available to such calls, should be in the hands of the treasurer. The council are happy to be able to announce that the former object has been accomplished; but as a report will be presented from the central committee, they do not consider it necessary here to enter into further particulars. In the mean time, however, the council would continue to urge upon the association the importance of this branch of it, so capable of being made the means of effecting so much good, at so very small a sacrifice on the part of individual members.

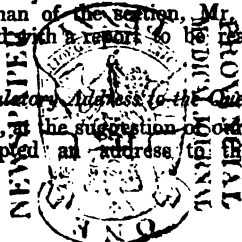
In reference to this fund, it is desirable to remind the members, that Dr. Cowan of Reading has given notice that he shall propose a resolution at this meeting, to make it compulsory upon every associate to subscribe five shillings per annum to the Benevolent Fund, in addition to the present annual subscription of one guinea, for general purposes.

Section on Medical Topography.

The subject of medical topography was referred by the council last year to several of the members; and the chairman of the section, Mr. Addison, will be prepared with a report to be read at this meeting.

Congratulatory Address to the Queen.

Your council, at the suggestion of our excellent president, adopted an address to the Queen;



H. R. H. Prince Albert, and H. R. H. the Duchess of Kent, on the auspicious occasion of the birth of the Princess Royal; which addresses were presented through the Secretary of State for the Home Department, and other state officers, and most gracious answers to the same were received.

Conclusion.

The council may be permitted, in concluding their report, to observe that there never was a period in the history of medicine more urgently requiring the united efforts of the profession than the present, and consequently there never was a time more urgently requiring the aid of such an association, as that whose ninth anniversary we now celebrate. Maintenance of the honour and dignity of the profession in the provinces is one of the express objects for which we associate; yet at this time a very strong impression almost universally prevails, that the present system of medical polity is not such as tends to maintain the honour and dignity of the profession, and it is evident that at no distant day important changes must take place. Upon this association will devolve a great responsibility, and therefore it is the more necessary that we should be cautious and wary in what we do. Above all, let every associate remember, that whatever may be the fate of the present agitation, we combine together for the noble purpose of lessening the sufferings of mankind; and that the investigation of the laws of mortality, and the diminishing the fatality of disease, will continue to engage our attention, and to be the distinguishing mark by which this association will claim the support of those who are interested in the advancement of medical science. Keeping these objects steadily before us, we need have no serious apprehensions of the success of the Association; for even if unfortunately all those advantages which are anticipated, should not flow from the proposed changes, the members of this association will, at all events, have great gratification in the reflection that their energies have been devoted to worthy objects, and that they have been occupied in pursuits which must ultimately lead to improvements in the healing art, and to the augmentation of the happiness of the human race.

It was moved by Dr. Colledge of China, and seconded by Mr. Garlick of Leeds,

"That the report of the council now read be adopted and printed."

Dr. Holme of Manchester moved, and Mr. Ceely of Aylesbury, seconded,

"That the thanks of the meeting be given to Dr. Steed of Southampton, the retiring president, and that he be appointed a vice-president of the association."

Dr. Barlow then proposed the following motion, on which, he observed, any exordium would be but impertinence:—

"That the thanks of the meeting be given to the secretaries of the association, Dr. Hastings and Mr. Sheppard, and that they be requested to continue their services."

This motion was seconded by Dr. Jeffreys, and carried by acclamation.

Dr. Hastings then replied on his own behalf, and also for Mr. Sheppard, who was unavoidably absent. He felt deeply grateful for the kindness with which they had responded to the motion, and also for the reception which he had met with from

the association ever since its formation. The most sorrowful day of his life would be, when necessity would separate him from the duties of a secretary; yet he now found that he was placed in a situation far different to that which he had expected on the first establishment of the society. They had commenced with but small numbers—as Bacon had said, "but a grain of mustard-seed," yet now the association appeared as a mighty oak ramifying its branches into all parts of the kingdom: its ordinary business was now most onerous, and the secretaries were called upon not only to attend to the literary and scientific papers sent for insertion in the Transactions, but also to take part in those great questions which took so much time for deliberation, especially as the responsibility rested mainly on them. So great was that responsibility, and so much had it weighed upon his mind during the past year, that he now felt the time to be approaching, when, after nine years of service, gray hairs, and a bald head, would admonish him that he was no longer active enough to be the responsible agent of that association; and however painful the feeling, he was conscious that at no distant day it would be imperative upon him—so great were the duties of the secretaryship, and so pressing were his own engagements as a physician—to resign that responsibility into the hands of some other person who might serve them more efficiently, certainly not more faithfully, than he had done. Dr. Hastings concluded, by thanking the meeting for the honour which had been done him, and assuring them that the interests of the association would, under any circumstances, always meet with his solicitude and support.

Mr. Hare of Leeds proposed, and Mr. Barnes of Stourport seconded, the next resolution.

"That the thanks of the meeting be given to the council for the past year, and that they be requested to continue their services with the following additional members, and that they be empowered to add to their number—Daniel J. Bamfylde, M.D. Fellow of the College of Physicians, Physician to the Bath Hospital and Walcot Dispensary, and Honorary Physician to the Friendly Society, Bath; John Soden, Esq., surgeon, Bath; Thomas Bevil Peacock, Esq., House Surgeon to the Infirmary, Chester; Thomas Fawcett, Esq., surgeon, Oldham, near Manchester; H. H. Broughton, Esq., F.L.S., surgeon, Dobcross, near Saddleworth; John Williams, M.D., Beverley, Yorkshire; George Hunsley Fielding, M.D., surgeon, Hull; W. Lunn, Esq., surgeon, Hull; H. Cooper, Esq., M.B. surgeon, Hull; Thomas A. M. D. Stocker, Physician to the Dispensary, Loddow, Extra-Licentiate of the Royal College of Physicians, London; Nathaniel Allen Travis, M.D. Physician to the Dispensary, Malton, Yorkshire; Edward Charlton, M.D. Lecturer on Forensic Medicine in the School of Medicine and Surgery Newcastle-upon-Tyne, and Physician to the Gatehead Dispensary.

Dr. Laycock of York here begged to make some observations on this resolution. He thought that, by the yearly addition of such numbers to the council, it would eventually become far too unwieldy; and further, that its members were not elected on the representative principle. This would eventually sow the seeds of disunion; and he feared that, instead of becoming a mighty oak the association would turn out to be but a rotten

popular, and fall to pieces—that is, if it did not recognise the representative principle. That was a principle recommended by the society to others, yet, as they had not followed it themselves, he was not surprised at the medical corporations of London telling them to take their own physic. It appeared that not one-tenth of the council ever attended any of the meetings; and at the present meeting, for instance, in addition to the local members of the council, only five of the general members had given their attendance. He hoped to see a more efficient plan adopted by next year, by which the opinions of the general members should be represented. At present, the members of the central council at Worcester appeared to be the real executive body—the *imperium in imperio*.

Dr. Webster spoke to the same effect, and recommended that the principle of the ballot should be introduced into the election of members for the council, seeing that at present there were no means afforded to any member, of either supporting or opposing such election.

Dr. Hastings replied, that the council were in the strictest sense elected on the representative principle; that the yearly local additions were made by the resident members of the profession, who, of course, were far more capable of judging as to the merits of their representatives, than were gentlemen residing at a distance; and, in fact, the council had scarcely ever exercised their right of self-adding to their members. In reply to Dr. Webster, he further stated, that all questions of any importance were not exclusively debated and settled by the members of the council at Worcester, but were made generally known to the members, either by circular or other means.

After some observations from Dr. Streeten, Mr. Husband of York, and Mr. Cooper of Hull, in defence of the fair principle on which the council elections were conducted, the motion was carried.

Dr. Jeffreys next took the opportunity of proposing Dr. A. Muhry of Hanover, as an honorary corresponding member of the association, which was seconded by Dr. Barlow, and unanimously agreed to.

Dr. Barlow then read the report and memorial of the Reform Committee.

Reform Report.

A resolution, passed last year, having empowered the central council “to act on behalf and in the name of the association, for the ensuing year, in presenting petitions to parliament, or such other procedures as circumstances might render necessary,” the duty of notifying whatever has been done under the authority so given, has devolved, of course, on the central council; and your committee are, in consequence, released from the necessity of specially noticing what it became the immediate province of the central council to report. The functions generally assigned to your committee, however, at their first appointment in 1837, viz. that of watching over the interests of the profession, require from them the fulfilment of other duties, which it is their earnest desire faithfully to discharge; and in conformity with the course hitherto pursued by them, they now proceed to submit to you the views of reform which attentive observation and deliberate reflection have led them

to form, and which seem to them best suited to the present position of affairs.

In the attempts hitherto made by them to expound this complex and intricate question, so as at least to develop the principles by which legislation in respect of it should be guided, it has been the invariable aim of your committee to scrutinize first the reforms essentially needed, and secondly, the adaptation of reform measures, which, abiding by whatever time and experience have marked as worthy of preservation, would cause least disturbance of existing institutions, it being the clear and settled conviction of your committee, that there should be no interference with the latter beyond what the exigencies of the case, and the effective correction of errors and defects, imperatively demand.

It is the no less decided belief of your committee, that effective reform might be realized, not only without disturbing injuriously any existing institution entitled to consideration, but with the certain result of raising the present colleges to a higher eminence than they have ever yet attained, by directing the energies of each to its appropriate ends, and by concentrating their respective endeavours so as to insure more effectually the benefits which each is capable of conferring on the science, the profession, and the general community.

The advantage of these colleges is, that they are well calculated, if their energies were well directed and actively employed, to promote the advancement of medical science; and that by conferring honorary distinctions through their diplomas, they furnish to individual members of the profession incitement to scientific zeal, and to the diligent culture of the higher powers of the mind, with which individuals are so variously gifted.

But as these colleges have been severally established for superintending only isolated branches of the profession, there being none whose province it is to regulate the whole, or combine the several branches in the way which practical efficiency and the perfection of the medical character demand, there exists a want which it is the bounden duty of an enlightened legislature to supply—that, namely, of some legal ordinance, which, recognizing the natural unity of the profession, would insure that every member entering it, whatever the department to which he should more immediately devote himself, should be duly attested as to his qualification in every branch, a competent knowledge of all being indispensable for rendering him a safe practitioner in any.

This latter affirmation is so irrefutable, that it is now denied by none; and the admission fully justifies all the views of reform which your committee have, in their former reports, submitted to you. In these reports, the subject has been already so fully elucidated, that further explanation now would be superfluous.

If competency and uniformity of qualification, then, be the main requisite for insuring to the public well-instructed practitioners, it is obvious that some legislative enactment is needed for accomplishing this end—the existing institutions, as at present constituted, being wholly incapable of effecting it, while, owing to their number and diversity, they admit not of being in any way modified so as to attain it.

Your committee have amply explained the indisputable necessity of insuring the competency of

the individual practitioner for the fulfilment of his duties, and enforced the expediency of seeking this by the only means by which it can ever be accomplished, viz. by the legislative establishment of a uniform qualification, through the instrumentality of a national examining and licensing board—one such being provided for each division of the kingdom.

Whatever other reforms may be needed in the profession, this of legally establishing a uniform qualification, as the only ground of claim for a license to practise, is the fundamental requisite—for without it no reform can by any possibility be real or effective. Were this obtained, other subsidiary measures would still be needed; but for those the profession could wait until time, and a fuller consideration of their nature and suitability, should demonstrate the propriety of their being superadded.

Deeply impressed with this conviction, your committee are still, as on all former occasions, the advocates of seeking from parliament, in the first instance, uniformity of qualification, as the requisite for a legal license to practise, and this alone. By complicating this simple and irrefutable claim with schemes for a system of government applicable to the collective profession, which legalized qualification would embody, and, more signally, by making the latter the more prominent object, instead of the consecutive, your committee are clearly of opinion that the natural order of progression is not observed, and that reformists, by deviating from or inverting this natural order, mar their own purpose, thereby strengthening an opposition which would else be nerveless. Were a legalized profession once constituted in the way proposed, a body so numerous and influential could not fail to obtain, in no long time, ample powers for conducting its internal government, in whatever way sound principle should direct.

Such is the deliberate judgment of your committee on the extent to which the association should, in the first instance, seek from the legislature an amelioration of the state of the profession. Their main objection to complicating the question of qualification with that of internal government, arises from their strong apprehension that a too earnest pursuit of the latter would bring into hazard, or, at least, greatly procrastinate the attainment of the former; and so vitally important do they deem uniformity of qualification, that to insure or accelerate it they would willingly make a temporary sacrifice of all ulterior purposes.

Your committee are not unaware, that the same statute which ordains the establishment of a national examining and licensing board, might also unite in one corporate body the collective profession so constituted, and empower it to conduct its own internal government by a representative council or senate: but being of opinion that pressing for the latter would endanger or retard the more essential purpose, it is their earnest recommendation that this be exclusively pursued until it be accomplished.

It remains, however, to be considered what measures the association should adopt towards obtaining the fulfilment of their desire. Further petitions to parliament seem to your committee unsuitable and fruitless. Parliament can only legislate on bills submitted to their consideration. The difficulty lies, not in any indisposition of par-

liament to exercise its senatorial functions, but in getting submitted to it such a bill as it could pass. Unless an eligible bill be framed, parliament can do nothing. The energies of the association, therefore, require to be now directed, not to urging parliament to do what it cannot effect, but to promoting the fabrication and introduction of a suitable bill.

It is of some importance from whence this bill should emanate. Speculative reformists, impelled by a too ardent desire to realise speedily all their conceptions, would be disposed to seek too much. Existing institutions, on the contrary, if entrusted with the framing of a bill, would concede too little. In such emergency, a bill for regulating the profession of physic should issue from some party untrammelled by either extreme; and this party, your committee conceive, should be the ministers of the crown. The subject, assuredly, is of sufficient national importance to claim for it the direct attention of her Majesty's ministers, as the legitimate guardians of the public welfare; and the concluding advice of your committee is, that the association now agree to a suitable memorial being addressed, on its behalf, to the secretary of state for the home department, praying that ministers would themselves undertake the cause of the profession, and proceed to frame such a bill as would give to it a sound legal constitution, suited to its wants, and conducive to the well-being of the community.

Memorial to be addressed to the Secretary of State for the Home Department, on behalf of the Provincial Medical and Surgical Association.

The members of the Provincial Medical and Surgical Association beg leave respectfully to submit to certain considerations relating to the profession to which they belong, that appear to them to claim the earnest attention of her Majesty's ministers.

Your memorialists need use no laboured argument to prove that of all earthly blessings health is the greatest, and that its maintenance throughout the community constitutes a most important element of national prosperity.

For the maintenance and restoration of health, an enlightened medical faculty is so obviously requisite, that none will deny a truth so irrefragable. Unhappily, while the United Kingdom abounds with medical practitioners of the highest skill, no provision has been made by the state for ensuring that all who engage in medical practice shall have their competency to discharge its duties adequately proved.

Hitherto the condition of the medical profession in this kingdom has received from the state but slight regard: less, certainly, than in any other European nation. The few laws that have been enacted for its government are either so antiquated as to be utterly unsuited to the present times,—or they relate to special branches of the profession only, leaving the collective profession destitute of all adequate organization, and the community wholly unprotected from the grossest delusions of ignorance and imposture.

On the state of the profession in this country much light has of late years been thrown by widely-extended discussion, and especially by investigations, conducted with great labour, by a committee of the Commons House of Parliament.

The want of suitable legal organization for the profession being ascertained, the way is prepared for appropriate legislation, and it is only requisite that a well-framed bill be submitted to the senate to ensure for the subject due consideration.

Much importance, however, attaches to the source from which such a bill should emanate. Speculative reformists, from a too ardent zeal to realize speedily all their conceptions, would be liable to seek too much. Existing institutions, on the contrary, if entrusted with the framing of a bill, would concede too little. In this emergency, it is most desirable that any bill for reforming the medical profession, for calling forth its full energies, and adapting it to the necessities of all classes of the community, should issue from those who would be untrammelled by either extreme party, namely, the ministers of the crown.

Your memorialists, therefore, deeming the subject of sufficient national importance to claim for it the direct intervention of government, as the legitimate guardians of the public welfare, respectfully solicit to bring it under the consideration of your colleagues of the cabinet, with a view to the introduction of a bill for medical reform prepared under their auspices.

Mr. Norman of Bath moved, and Dr. Brown of Sunderland seconded, the following resolution:—

“That the report of the reform committee be received, and that the thanks of this meeting be given to them for the able manner in which they have watched over the interests of the profession; and that the committee be re-appointed.”

Dr. Marshall Hall opposed the recommendation of the memorial. It had been alleged, on good grounds, that a reform of the profession could not safely be entrusted either to the College of Physicians or the College of Surgeons; he thought the same argument would apply to her Majesty's ministers, who, when the matter was brought before them, would undoubtedly ask for information from those very colleges.

After some further observations from Dr. Hall, Mr. Salmon of London, and the reading of a letter from Dr. Sinclair of Manchester, respecting a pamphlet of his on the subject of medical reform,

Dr. Black of Manchester observed, that the words “medical reform,” made use of in the report, were too vague a term, and that something specific should be made use of—perhaps the subject of medical education would be the best to make a stand upon. The sudden urging of extensive reforms might embrace almost the upsetting of the profession; and, therefore, such a memorial as the present would probably lead, not to the introduction of a bill embracing the objects sought for, but to an inquiry into the state of the profession, resulting in anything but a satisfactory arrangement.

Dr. Webster would not oppose the adoption of the report, yet he also thought that no specific principles had been laid down in it. He doubted the policy of the course about to be pursued; one or two members of the association in London, and a high official about the court, had expressed their doubts as to the successful issue of such a plan as that laid down in the memorial. Agreeing, therefore, as he did, with the principle of the report, he had prepared a few resolutions which

would represent in the memorial the statement of more specific principles, yet be in full accordance with the objects of the association; but before reading them he would offer a few remarks. He premised, that a committee should be formed in London, which should be an organ of communication with the government; and he mentioned a few gentlemen who, as he thought, were fitting to be members of that committee—Sir J. Clark, Dr. Forbes, Dr. Williams, and Mr. Farr; but perhaps this would more properly be left to the reform committee. He, however, asserted that the present was not the time to memorialize the government, which was about to change hands; and, further, that the in-coming government, whenever the state business might allow them to turn their attention to the subject of medical reform, would be much more likely to ask for information from the existing corporations than were the present government. But if they decided on at once memorializing, it was highly necessary that in that memorial certain specific principles should be laid down.

The report just read having been received and adopted, and the subject of the memorial having been put before the meeting in a separate form,

Dr. Webster rose to move the additions he had mentioned as an amendment. He first observed, that the one point of incorporation must be attained first or last, and that the union of the profession into one body of qualified practitioners being once obtained, everything else desirable would speedily follow. In fact, incorporation had already taken place to a certain extent. That association was an incorporation. And why?—simply because the existing corporations could not by any means be induced to work a reform in their respective bodies. The propositions he meant to submit were few and simple. He had been a member of that association for five or six years, during which time, although many valuable reports had been, year after year, presented, still up to the present moment they had recognised no well-expressed principles of reform. He would, therefore, propose that in any measure which should be brought forward to the notice and support of the association it should be founded on—first, a minimum qualification to practise, or an uniform and competent degree of preliminary medical acquirement, with equality of rights and privileges; secondly, a registration of all legally qualified practitioners, of course not rejecting those who had been qualified according to the old standard, but simply enforcing a new standard prospectively; thirdly, the incorporation of the whole profession into one general faculty of physic; fourthly, a representative principle of government; and, fifthly, a general regulation of the practice of pharmacy. The learned doctor next argued at some length, that the establishment of these views would neither injure existing interests, nor were intended to withhold the higher honours of the profession from the reach of the general members. It was not, however, to be expected that existing corporations would take up the subject fully. The College of Physicians said, “We have now exercised rule for two hundred and fifty years, and we cannot, therefore, sanction your interference.” The College of Surgeons declared that they were immaculate, and Mr. Guthrie, the president, saw nothing whatever necessary for

alteration: in fact, they wished to live as long as they could, and the subject was a dose of arsenic to them. He believed that some slight principle of reform had, however, been recognised in the two colleges, and also in Apothecaries' Hall—namely, the principle of representation; but it was apparent that each body was but striving for the extension of its own power and privileges. Dr. Webster concluded by the recommendation of his resolutions.

Dr. Maunsell said, that he had been requested by Dr. Webster to second his propositions, which, however, he had only seen that morning, there not having been any concert upon the matter between him and Dr. W. Before doing so, he begged to say that he and his colleague attended the present meeting on the part of the Medical Association of Ireland, not to instruct or dictate to the Provincial Association, but to consult with it in the most friendly spirit, and particularly to arrange some plan of effective co-operation in the common cause of the profession, which, it was now universally acknowledged, laboured under heavy grievances in both countries. Dr. M. having then, at some length, supported the propositions of Dr. W., said, that he wished particularly to impress upon the present meeting the necessity of proceeding from deliberation to action. He fully concurred in the report of the reform committee, and in the memorial which was founded upon it; and he agreed with his respected friend, Dr. Barlow, in thinking that some time must elapse before they could hope to accomplish anything final with regard to the regulation of the profession, but still, if they always continued in speculation and never proceeded to action, they would make no progress. What he wished to propose was, the formation of a responsible committee which would co-operate with other bodies in the profession, both corporations and voluntary, and a portion of which might be in London, or which might have the power of commissioning an agent in London, when matters were going forward there of importance to the profession. In making this proposal he did not mean to undervalue the services of the council; but he desired a committee having the protection of the profession for their especial duty, and responsible for the performance of that duty. Such a committee could communicate with the government, and prevent them from seeking all their information from the corporations. It should also be directed to frame a bill for the regulation of the profession in union with the other bodies, and, by laying such bill before the government, so enable them to act in conformity with the prayer of their memorial—this was an essential step, and was also the only possible mode of ascertaining the sentiments of the profession: such a bill, in fact, if properly drawn up, would be a series of propositions upon which the views of men might be tried. There were many other matters which required the services of such a committee. For example, the approaching discussions upon the Poor-law Amendment bill. Such a committee should be entrusted with funds, as without money nothing could be done; and if so provided, and empowered fully and effectually to co-operate with similar committees from other associations, he (Dr. M.) was well convinced that it would be more effectual in obtaining speedy justice for the profession than was commonly supposed. After some further observations, Dr. Maunsell concluded.

After some observations from Professor Williams, in support of the previous speakers,

Dr. Hastings replied that, in his opinion, the wiser course would be not to strive at the attainment of all the objects aimed at by Dr. Webster, and by too great eagerness lose them all, but to keep steadily in view one object at a time. Qualification was no doubt the primary object to be contemplated; that once secured, the attainment of all that was necessary to the well-being and efficiency of the profession would quickly follow. Dr. Hastings wished to correct a misapprehension into which Dr. Webster had fallen, in stating that the association had been specially formed to promote medical reform. The objects for which the association was instituted were several, and they had been steadily adhered to—the investigation of the laws of mortality, and the sources of endemic and epidemic affections, and the general advancement of the science of medicine. Maintenance of the honour and dignity of the profession was also a special object of regard, and the question of medical reform had thus incidentally forced itself on their attention.

A lengthened discussion ensued as to the order in which the memorial and the resolutions should be put to the meeting; at length the presentation of the memorial was agreed to, and Dr. Webster was then induced to withdraw his *addenda*, on the arguments of Drs. Barlow and Hastings, that the safer and more practicable course would be, to adopt the recommendation embodied in the memorial, and that any other proceedings would mar the progress of medical reform.

The meeting then adjourned.

THE SECOND GENERAL MEETING

was held at the same place, at eight o'clock in the evening, when Dr. Goldie again occupied the chair.

The first business was the reading of the Poor-law committee report by Mr. Ceely of Aylesbury.

The report having been read, it was moved by Mr. Salmon of London,

"That the report of the Poor-law committee be received and printed, and that the thanks of the meeting be given to the committee for the zeal and energy manifested by them on this subject, and that they be reappointed to watch the further proceedings of parliament, and to suggest to the council from time to time such measures as may appear to them to be necessary to meet circumstances as they arise."

Mr. Salmon fully coincided with the remarks in the report alluding to the unfairness and impolicy of the government measures, whereby medical men were so inadequately remunerated, and resulting in the employment of ill-qualified practitioners; giving instances wherein young men who had but just passed their examination, and consequently having their practice to learn, had superseded older and much better qualified practitioners in parochial appointments.

Mr. Davy of Beccles seconded the motion, observing that if the members of the profession were but true to themselves, and unanimously resisted degrading terms, the abuse might be in a great measure remedied, which he illustrated by some instances familiar to him.

Dr. Lyon objected to the harsh terms employed against the poor-law commissioners in the report. He imagined that the commissioners were only the servants of the crown, appointed to execute, and not alter, certain laws.

Mr. Ceely replied, that the commissioners were truly the servants of the crown, yet that they had not exercised the power vested in them, of offering for the adoption of the legislature the recommendations made by the parliamentary committee on the subject of reform, and were therefore deserving of the terms which had been employed. (Hear hear.)

Dr. Webster next spoke of the parochial appointments and the "per case" system. He believed that the members of the profession possessed in themselves the moral power of working out their own regeneration. At a late meeting of the Cornwall Association, it was agreed that no member should accept any appointment under the poor-law, until he had consulted with the association as to the terms proposed. If this plan were adopted in the rest of the kingdom, much good must ensue. The injustice as well as the ultimate loss of appointing to such offices young men who had but just passed their examination, was clearly apparent: the poor, of all other classes, required the most experienced medical treatment; 50 per cent. of their cases of illness were very severe; and such illness was of greater importance to those classes, seeing that it deprived their families of the means of support, and driving them also to the union workhouse, to be maintained at the charge of those who, by a more liberal policy, and the securing of better advice, might have prevented such a result. (Hear, hear.)

Some conversation ensued as to the scale of remuneration proposed by Mr. Farr, which some considered as too low, on which the subject was dropped.

Dr. Conolly next read

The Report of the Benevolent Fund Committee.

The central committee for the management of the Benevolent Fund of the Provincial Medical and Surgical Association, regret that on this occasion of rendering up their account, they are unable, as in former years, to give a list of cases relieved, or of members of our profession labouring under the pressure of temporary difficulties, assisted and encouraged to perseverance by the sympathizing aid of their benevolent and more fortunate brethren; not but that in the course of the past year numerous urgent and distressing applications have been made to the central committee; but it will be recollected that in consequence of the embarrassed state of the fund, a resolution was passed at the last annual meeting of the association held at Southampton, prohibiting the central committee from granting any further relief until the debt due to the donation fund should be paid off, and that there should be remaining in the hands of the treasurer the sum of one hundred pounds, available for the purpose of affording relief to distressed members of the profession. Thus, the committee have been compelled, with much sorrow, to return answers of denial to numerous applications which, had they possessed the means, they would have considered entitled to assistance. They have, however, the

satisfaction to report to the association that, in consequence of the great exertions made during the past year, by several benevolent members, the debt due to the donation fund last year, amounting to 60*l.* 18*s.* 7*d.*, has been paid off, and that there is in the treasurer's hands a sum of rather more than fifty pounds available for the purpose of casual relief, when it shall have reached the proposed amount of 100*l.* From this, however, the disbursements of the year are to be deducted. This the committee cannot doubt will be effected before the conclusion of the present meeting. Amongst those who have particularly exerted themselves during the past year to rescue the fund from its embarrassment, and to whom the committee feel their thanks are especially due, are, Mr. Newnham of Farnham, Mr. Dodd of Chichester, Mr. Crosse of Norwich, and Dr. Hastings. The committee beg respectfully, but strenuously, to urge every individual member of this great association to use their utmost endeavours to augment the amount of subscriptions to this valuable charity, and not to allow it to languish as it has hitherto done. The clerical and legal professions have each a noble fund of a similar nature, and surely the medical world will no longer suffer such a reproach to attach itself to them, as that those who by the fortunate exercise of their skill and attainments have been placed in affluent or at least competent circumstances, are unwilling to spare a few shillings annually to afford relief to their less fortunate brethren. The committee would particularly urge the *district* members of the association to make collections in aid of the fund at their annual meetings, and the treasurer will have much pleasure in forwarding to the secretaries copies of the rules and regulations, lists of subscribers, &c., and also collecting cards, which may be given to any benevolent individual of either sex, who might be disposed to collect small sums for the fund.

Although the committee have it not in their power to congratulate the association upon the number of persons relieved this year, yet it would be ungrateful in them not to acknowledge that great exertions have been made. Sixty pounds of debt to the donation fund have been paid off, and there are nearly fifty pounds in hand. The subscription list for this last year is indeed larger than on any former occasions, and the committee feel assured that still greater exertions will be made during the ensuing year, and they cannot doubt but that the benevolent fund will be supported in future in such a manner as to be not only a great blessing to the unfortunate, but also an honour to the association, and a durable monument of the munificent liberality of the medical profession.

John Baron, M.D., President;
William Conolly, M.D., Secretary.

Treasurer's Account.

	£.	s.	d.
Amount of donation fund, July, 1840	251	10	0
Donations from July, 1840, to June 30,			
1841	49	15	0
Interest to June 30	2	11	0
Total	£303	16	0

Amount of subscriptions from July, 1840, to June 30, 1841	109 11 0
Debt repaid to the dona- tion fund	60 18 7
Disbursements for postage, parcels, and printing	11 14 6
	<hr/> 72 13 1
Balance in hand	£36 17 11

WILLIAM CONOLLY, M.D.
Treasurer.

Dr. Simpson of York moved, and Mr. Smith of Leeds, seconded,

"That the report of the benevolent committee be received and adopted, and that the thanks of this meeting be given to them for the judicious manner in which they have managed the funds."

In the absence of Dr. Cowan, who had given notice of a motion that an annual subscription of five shillings should be required from each member of the association, in furtherance of the purposes of the benevolent fund, Mr. Newnham brought forward a motion to the following effect:

"That this meeting being deeply sensible of the importance of the benevolent fund, and lamenting its present inadequacy, pledges itself individually and collectively to exert its utmost energies to relieve it from embarrassment, and to place it upon that footing of permanent usefulness, which its own pure object of charity and the character of the profession equally demand. And the better to accomplish this object, this meeting recommends the committee of the benevolent fund to issue a circular to each member of the association, enclosing a collecting card, and urging the claims of the institution, as well as inviting him to become a subscriber to the extent of his ability; and also to bring the subject before his friends in the manner and at the time which he shall deem most expedient."

An affecting appeal to the sympathies of the profession was then made by the speaker, who gave instances of extreme distress often occurring in the profession, especially the elder practitioners, who were often superseded in their scanty practice by younger and more vigorous men. One old gentleman, of eighty-three, he stated, had, to his knowledge, been attacked by paralysis, and had not one shilling in his pocket to provide for his support; and yet a large body, of some 1,300 of his professional brethren had refused him relief, in consequence of the embarrassments in the fund. Mr. Newnham next remarked, that out of the 120l. donations and subscriptions collected during the past year, nearly one-half had been subscribed by two individuals, and much of the remaining sum by non-professional persons. He earnestly recommended to the humane consideration of the profession the use of the solicitation cards which had been found so effective; he himself had adopted the plan during the past year, and the result was that not a card had been sent empty away, and he had thereby collected 17l. 14s. donations, and 15l. 10s. annual subscriptions.—(Cheers.) He further averred that every member of the association now received his *quid pro quo* for his guinea, in the shape of the annual volume, which consideration would be increased when the

Provincial Medical and Surgical Journal should be recognised as the organ of the association, and forwarded gratis to each member; and, therefore, a further call in aid of charity was not exorbitant.

Mr. Griffith of Wrexham seconded the motion, which, after some discussion as to the subscription of some of the members to certain local charitable funds, was unanimously agreed to.

Mr. Churchill, the extensive medical publisher of London, here announced that the appeal had so worked on his feelings, that he thought it his duty, out of gratitude to the medical profession, to present for the purposes of this fund a cheque for ten pounds.—(Great applause.)

Mr. Champney of York moved, and Dr. Lyon of Manchester, seconded,

"That Dr. Black of Manchester be requested to deliver the retrospective address in medicine at the anniversary meeting for 1842."

Dr. Black returned thanks for the honour and the confidence reposed in him, and acquiesced in the request, on the condition that the next anniversary should not be held in the same week as that of the British Association for the advancement of Science, which would distract his attention from it for the advancement of science.

Dr. Black then moved, and Mr. Browne of York, seconded,

"That Mr. Sands Cox of Birmingham be requested to deliver a retrospective address on surgery at the anniversary meeting for 1842."

Both these motions were unanimously agreed to.

The Report of the Section on Medical Topography

was next read by Dr. Streeten, in the absence of Mr. Addison, the chairman of the section.

The council of the Medical and Surgical Association have at various periods adverted to the expediency of appointing, from the association, sections for the investigation of particular departments of medicine. In accordance with these views, the topographical section was formed. Soon after the formation of this section, printed circulars were sent to the various members of the association, embracing several important topics of inquiry connected with the objects of their formation, and particularly having reference to the comparative prevalence and mortality of consumption.

Several of these circulars have been filled up, and returned to the section, accompanied in some instances with many valuable remarks and observations; among which we may notice those of Dr. Black of Manchester; Dr. O. Ward of Shrewsbury; Mr. Engledue of Portsmouth; Mr. Estlin of Bristol; and Dr. Feild of Torquay.

But the principal object for which these queries were made has been realized by the very important annual reports from the registrar-general's office, and by the still more valuable (in a medical point of view) appendices affixed to them, containing the results of the labour and talent of Mr. Farr.

To this gentleman the thanks of the association are due, for the care and ability he has shown in the arrangement and calculation of the various difficult and complex tables, and for the labour he has devoted to the subject of medical statistics generally; (and the section would respectfully urge this point upon the attention of the associa-

tion.) The results obtained by these means have rendered it unnecessary for us to make any special reference to the papers, observations, and queries before referred to.

In the department of meteorology, the section have to remark that their inquiries point out two distinct sources of disease arising from atmospheric influences; the one, alternations in the temperature and pressure of the air; and the other, the quantity, temperature, and ever-changing nature of the impregnations of the invisible vapour of the atmosphere.

The former have frequently an obvious influence in occasioning troublesome, often tedious, and sometimes fatal diseases. The latter are the more immediate causes of those severe endemic and epidemic diseases which frequently arise, and to which certain localities, and sometimes extensive districts, are occasionally liable. These latter kinds of disease, embracing the fevers of towns, influenza, cholera, &c., are clearly traceable to noxious matters, drawn up and soluble in the aqueous vapour which arises from evaporation.

There are numerous facts tending to prove that the invisible vapour constantly present in the air, in variable quantity, is the active agent by which all noxious miasms are taken up and diffused; and, as a necessary consequence, that the nearer the temperature approaches to the dew point, or to the temperature at which the vapour can no longer be retained in the air, the more active its adventitious impregnations become.

A variety of interesting considerations are connected with this part of the subject; but it is unnecessary on this occasion, and at this time, to do more than thus briefly refer to it.

Pulmonary consumption, it appears from the registrar-general's reports before alluded to, carries off from 59,000 to 60,000 individuals *annually*!! chiefly persons in the bloom of youth, a period when the principal enjoyments and duties of life are just commencing.

The prevalence of this disease in all seasons, and over the most extensive range of soil and climate, indicates that its origin is due to some peculiarity in the texture or organization of those who are its victims. The hereditary character of the disease, and the very unsatisfactory results when it is attempted to connect the disease with any peculiar atmospheric condition, or with any distinguishing characteristic of soil or climate, render this view of the predisposing causes extremely probable.

With regard to the influence of situation on this disease, the returns of the registrar-general's office show a slight diminution in some places compared with others, but there is no immunity even in the most favoured localities; and the diminution in every instance is too small to lead to any hope, or favour any expectation, that a change of residence to any part of England will prevent the accession of the disease, or arrest its progress.

Consumption is far more prevalent and fatal in cities and towns than in the open country; and in the country it is more prevalent in the flat alluvial plains, particularly such as border on the banks of large rivers, than in the more elevated and undulating districts removed from them.

In Cambridgeshire, Huntingdonshire, Lincolnshire, Essex, Norfolk, and Suffolk, the deaths from consumption average 19 per cent. of the

total deaths, and 5.7 per 1000 of the population in 1831; whereas, in Cumberland, Northumberland, Herefordshire, Monmouthshire, and Wales, the consumptive deaths average only 16.2 per cent. of the total deaths, and 4.9 per 1000 of the population.

A more detailed report will be drawn up at some future opportunity."

Mr. Crang then moved, and Mr. Workman seconded,

"That the report of the section appointed on medical topography be received, and that the thanks of the meeting be given to the members forming the same."

Several interesting papers were next laid before the meeting.

The first was by Dr. Fisher, Fellow of Downing College, Cambridge; it was a case in which several tumors were developed in the midst of the *cauda equina*, and was illustrated by a beautiful drawing of the diseased parts. On the application of Dr. Hastings, this case was contributed for insertion in the Transactions.

Dr. Black next read a series of extracts from reports of the Government Hospital at Mexico, and the lazarettos in that district, relative to the treatment of small-pox.

Mr. Newnham then read a paper on revaccination, after which the meeting, at about twelve o'clock, broke up.

THE BREAKFAST

was held on the following morning at nine o'clock, at the Guildhall, when about seventy members and friends attended.

After the breakfast an agreeable *conversazione* ensued; and the members of the association then paid a visit to most of the public institutions of the city, the cathedral, &c., and inspected the magnificent museum, with its delightful gardens and rare curiosities—the remains of the Roman wall and multangular tower, (part of the fortifications of the ancient Eboracum,) the interesting ruins of the Abbey of St. Mary, and many other objects of attraction.

THE THIRD GENERAL MEETING

was held in the theatre of the museum, at about twelve o'clock, Dr. Goldie in the chair, when, after the proposition and election of many new members, the retrospective address was read by Dr. Streeten; but as it is, for obvious reasons, impossible for us to give an account of this part of the proceedings, we extract the following notice from the *Gateshead Observer*, in preference to inserting that furnished by our own reporter.

"Dr. Streeten (one of the editors of the *Provincial Medical and Surgical Journal*) read an able retrospective address on medicine, which will be published in a separate form. It was well delivered, and listened to with profound attention. At its close, the members broke out in loud acclamations, which were long protracted.

"Dr. Wake rose and said, that the pleasing task had fallen upon him to move a vote of thanks to the author of the address which they had just heard read. It was not for him to dwell upon its merits—their applause spoke volumes, and far ex-

ceeded any feeble language in which he could express his approbation. Every paragraph of the address was characterized by great talent, and many passages breathed a spirit of the finest feeling—more particularly towards the conclusion, where Dr. Streeten paid so high and so just a tribute to the memory of their departed friend, Sir Astley Cooper—one of his (Dr. Wake's) most early patrons, and whose kindness he never could forget. Among the many benefits conferred on the members by this institution, there were none more calculated to do good than the annual delivery and publication of a well-written retrospect of the medical events of the past year. This practice was especially valuable to those individuals who, engrossed by the daily duties of their profession, were not possessed of leisure to read the various works that were published from time to time, and could not, therefore, keep pace with the progress of medical science, were it not for such comprehensive summaries as those which the Provincial Association called into existence. (Applause.) There was one portion of Dr. Streeten's address with which he was gratified; he alluded to the observations on Dr. Conolly's valuable labours at Hanwell—a subject in which, as physician of a lunatic asylum, he (Dr. W.) took peculiar interest. He had great pleasure in proposing a vote of thanks to Dr. Streeten, with a request that he would permit his excellent address to be printed.

“Dr. Fisher was glad of the honour of seconding the motion. Having read the retrospective addresses of previous years, one of his chief objects in attending the present meeting, was to hear the address of Dr. Streeten. To say that his expectations had been realized, would be to say less than the truth: they had been more than realized. But there was no pleasure without alloy, and he felt that he had reason to complain of Dr. Streeten, when he saw him omit several pages of his address, from an unnecessary fear of exhausting the patience of his audience. He hoped there would be no omission in the printing, but that the whole address would be published. It comprised so much that was novel and useful—its contents were so rich and varied—that the mind must read it again and again, before it could digest and absorb it. (Applause.) It was no less conspicuous for modesty of spirit, generosity of feeling, and agreeableness of style, than for the high attainments and diligent research which it abundantly evinced. He had, therefore, great pleasure and satisfaction in seconding the motion.

“The Chairman, after alluding to the retrospective addresses of previous years, and observing that Dr. Streeten's well sustained the high character of the series, put the motion to the meeting, and it was carried by acclamation.”

Dr. Hastings then read the following letter from J. C. Williams, Esq. of Nottingham:—

Nottingham, Aug. 4, 1841.

MY DEAR SIR,—Until the last moment, I have not given up the thoughts of joining our meeting at York, and truly it is a great disappointment that I am prevented. I have many reasons why I wished to be at the present meeting; and one is, that I have promised one of the most humane, active, and zealous magistrates of the Middlesex bench—I mean Serjeant Adams—to bring before the asso-

ciation the great experiment now making at Hanwell in the management of the insane. You are quite aware how early friendship and high regard would induce me to speak of Dr. Conolly, and I had intended to mention it after the reading of the retrospective address. I think it one of the most important matters connected with our profession during the past year; and I know no place so proper as York to make pointed allusion to it, where the truly benevolent management of the insane received a first trial. Would you kindly, in the way you think best, enable me, in a measure, to fulfil my promise, by alluding to the subject as from me, that it may appear in the proceedings, an account of which I can send to Serjeant Adams. You scarcely know the zeal and ability with which he is assisting Dr. Conolly.

I wanted to have said a great deal likewise on medical reform, and on the medical management of the poor. I hope the association will not sanction the destruction of the existing corporations, however determined it may be to infuse new life-blood.

I have not the slightest objection to the reading of this letter, if you think its entry in the proceedings would answer the purpose of calling the specific attention of my medical brethren to so important a subject as the humane management of the insane. Again regretting I am compelled to write, instead of being present, and addressing you, believe me ever yours truly,

J. C. WILLIAMS.

Charles Hastings, Esq., M.D.

Mr. Husband of York next read the report on empiricism, on behalf of Dr. Cowan, the chairman of the committee, who was unavoidably absent.

Mr. Williams of York then moved, and Dr. Baird of Liverpool seconded, after a few observations recommendatory of avoiding premature attacks on empiricism:—

“That the report on empiricism be received, and the thanks of this meeting be given to the gentlemen forming that committee, and that they be reappointed.”

Mr. Griffith of Wrexham next moved, Mr. Garlick of Leeds seconded, and it was carried unanimously,

“That the attention of this association having been called to the present state of the law as it affects female criminals under sentence of death, it desires to record its strong feeling of repugnance to a statute which permits the woman who has quickened, to plead pregnancy in bar of execution, whilst the same individual, though equally the mother of a living child, but not having quickened, must suffer the extreme penalty of the law, thus making a distinction where there is no difference, and fatally, though ignorantly, sacrificing an innocent life with that of the guilty parent. And though not prepared on the present occasion to take any decided steps, it fully recognises its obligation to adopt, at some future time, such measures as will, it trusts, lead to the abrogation of a law partial and cruel in its effects, inconsistent with the progress of knowledge and civilization, and consequently revolting to the feelings and claims of humanity.”

Mr. Toogood of Bridgewater then moved, and Mr. B. Eddison of Nottingham, seconded,

“That a section be appointed for the purpose

of investigating the pathology of cancer, and that it consist of the following gentlemen, with power to add to their number:—Dr. Fisher, Fellow of Downing College, Cambridge; A. T. S. Dodd, Esq., Chichester; Daniel Noble, Esq., Manchester; Drewry Ottley, Esq., Exeter; Henry Russell, Esq., York, Surgeon to the County Hospital."

Dr. Robertson moved, and Mr. Ceely seconded, "That the anniversary meeting for the year 1842 take place at Exeter, and that Mr. James of Exeter be appointed president elect."

Dr. Hastings having spoken to the high qualifications of Mr. James for performing the honourable duties of president, and also drawn attention to the requisition which had been received from that city, signed by nearly all the members of the faculty in the city and neighbourhood, the motion was carried by general acclamation.

To the President and Council of the Provincial Medical and Surgical Association.

We, the undersigned physicians and surgeons, resident in Exeter and the neighbouring towns, beg to express a hope that the Provincial Medical and Surgical Association will elect the city of Exeter as the place for holding its tenth anniversary meeting, in July, 1842. We shall, in that event, endeavour to promote, by every means in our power, the success of the meeting.

J. Blackall, M.D., Exeter; P. Miller, M.D., do.; John Harris, surgeon, do.; John Edye, surgeon, do.; William Caird, surgeon, do.; C. K. Webb, surgeon, do.; T. Cowper, surgeon, do.; John William Harris, surgeon, do.; T. G. Norris, surgeon, do.; John Tucker, surgeon, do.; F. Granby Tarrant, surgeon, do.; William Henry Bealy, surgeon, do.; J. Steele Perkins, surgeon, do.; Samuel Steele Perkins, do.; W. Page Kingdon, surgeon, do.; W. F. Medland, surgeon, do.; M. De la Garde, surgeon, do.; E. D. Tuddecombe, Silvertown; G. P. Amory, surgeon, Exeter; Drewry Ottley, do.; Robert Arscott, surgeon, do.; S. Budd, M.D., do.; J. H. James, surgeon, do.; W. Woodman, surgeon, do.; W. D. Kingdon, M.D., do.; F. Granger, M.B., do.; F. H. Warren, surgeon, do.; Richard Lewin Pennell, M.D., do.; Samuel Barnes, surgeon, do.; E. P. Predham, surgeon, do.; John B. Parker, surgeon, do.; Arthur Kempe, surgeon, do.; R. H. Lucas, M.D., do.; W. Land, surgeon, do.; H. B. Holman, surgeon, Crediton; Thomas Hugo, surgeon, do.; E. Hugo, surgeon, do.; Charles Braddon, surgeon, do.; Edwin Empson, surgeon, do.; W. H. Hugo, surgeon, do.; Edward Yarde, surgeon, do.; Charles Hainworth, surgeon, do.; William Scully, M.D., Torquay; Jacob Bartlett Blackare, surgeon, do.; Robert Battersby, M.D., do.; J. B. Toogood, surgeon, do.; William Pallard, surgeon, do.; W. R. Jolley, surgeon, do.; J. H. Peebles, M.D., do.; A. H. Vallack, surgeon, do.; J. T. T. Jolley, surgeon, do.; L. R. Stewart, surgeon, do.; H. Appleton, surgeon, St. Mary Church; James Tetley, M.D., Torquay; Henry J. Brown, surgeon, Paington; Alfred Atkins, surgeon, do.; John J. Gamidge, surgeon, do.; Henry Parkin, M.D., Torquay; John J. Feild, M.D., do.; W. Cartwright, surgeon, Teignmouth; W. Anson Cartwright, surgeon, do.; George Gervis, surgeon, do.; J. B.

Bartlett, surgeon, do.; Henry West, surgeon, do.; A. P. Lake, surgeon, do.; Harry Tracey, surgeon, Dartmouth; J. Millar, surgeon, do.; William Mills, surgeon, Totnes; John Derry, surgeon, do.; John Bush, M.D., do.; William Gillard, surgeon, do.; Gilbert Northey Thompson, surgeon, do.; William Nellock, surgeon, do.; Edwin Williams, surgeon, Exeter; Thomas Senser, surgeon, do.; Thomas Shapter, M.D., do.

This having concluded the main business of the meeting, Mr. Ceely read a communication containing further observations on *variole vaccinae*, in illustration of his views recently published, on the important subject of small-pox, illustrated by new facts and beautiful drawings, which will duly appear in the society's Transactions.

Dr. Theodore Boissragon produced to the association a specimen of the articulations of the bones of the foot, from the astragalus to the termination of the phalanges, the whole being connected together by caoutchouc, so as to represent the ligaments by a close imitation of nature, all the connecting media being formed upon that plan only, there being no wires or cement of any sort besides.

The advantages arising from this mode are fourfold. 1. The bringing all the parts more closely in contact, and at the same time allowing a greater freedom of motion (according with nature in those parts which require it) than the old plan. 2. The enabling students an opportunity of studying the form and connexion of the ligaments upon the principle of nature. 3. The enduring elasticity of all the parts, which renders this mode of representation superior to the natural specimen. 4. It is expected that the expense will be one-third less than that attending the old process.

Papers were then read and announced as follows:—From J. W. G. Gutch, Esq., of London, on the influence on health of the climate of that city; from Dr. Davis of Presteign, on the use of opium in strangulated hernia; from Mr. Lingen of Hereford, on a case of fibrous tumor of the upper jaw; from Mr. Williams of Denbigh, on the successful treatment of prolapsus uteri by the cauterization; from Mr. Storrs of Doncaster, on the removal of stone by dilatation; from Dr. Tunstall of Dawlish; Mr. Sweeting of Abbotsbury; and Mr. Hare of Leeds.

Dr. Barlow then moved, and Dr. Jefferson seconded,

"That the respectful thanks of the association be given to the Right Honourable the Lord Mayor of York, for his kind permission of the use of the Guildhall for the festive meetings of this anniversary."

Dr. Hastings moved, in complimentary terms, and Mr. Thomas of Sheffield, seconded,

"That the cordial thanks of the association be given to the Yorkshire Philosophical Society, for permitting this anniversary meeting to be held in their theatre, and for liberally throwing open the museum for the gratification of the members and visitors."

The chairman returned thanks briefly as the senior member of the council of the Philosophical Society.

Dr. Robertson of Northampton moved, and Dr. Conolly of Cheltenham seconded,

"That the thanks of the meeting are justly due, and are hereby rendered, to Dr. Goldie for the

kind and efficient manner in which he has presided at this anniversary."

This vote having been acknowledged by the worthy chairman, the meeting broke up.

THE DINNER

was held about six o'clock on the same evening at the Guildhall, which was fitted up and decorated in an appropriate manner. About seventy gentlemen attended. Dr. Goldie occupied the chair, supported on the right by the Dean of York, Drs. Barlow, Jeffreys, Holme, Fisher, Wake, &c.; on the left, by the Recorder and Sheriff of York, Drs. Brown, Streeten, Simpson, &c.; Dr. Belcombe and Mr. Champney were the vice-presidents. The entire provisions and arrangements were of the very first-rate order, and reflected no ordinary credit on the skill of Mr. Lockwood, of the White Swan. During and after dinner, Walker's brass band played with great precision and effect many of the most popular and pleasing airs. The Dean of York said grace, both before and after meat; and on the removal of the cloth, the chairman gave,—

"The Queen."—(Usual honours.)

"Her Royal Highness the Princess Royal, and his Royal Highness Prince Albert."—(Usual honours.)

"The Queen Dowager, and the rest of the Royal Family."

The chairman then said he had arrived at the peculiar toast of the evening; he meant "Prosperity to the Provincial Medical and Surgical Association;" or, in other words, "our noble selves." With that toast he begged to incorporate, as was the usual custom, the name of its venerated founder, Dr. Hastings.—(Immense applause.) He regretted to add that the pressing professional claims of Dr. Hastings had called for his immediate presence at Worcester; and, therefore, for the first time since the formation of the association, he was unavoidably absent from the festive conclusion of the society's anniversary. The chairman then briefly recapitulated the history, rise, progress, and objects of the association; and after descanting on the desirable result of its labours, in the investigation of the causes and the treatment of disease, in watching over the honour, dignity, and efficiency of the profession, and in the concentration of talent and research in its nine volumes of Transactions—the toast was received and drunk with long-continued applause.

Dr. Jeffreys replied to the toast; and after acknowledging, in well-deserved terms, the universal kindness with which the association had been received in the ancient city of York, next alluded to the circumstance of Dr. Hastings wish to resign the onerous and greatly increased duties attached to the office of secretary; observing that he hoped the association's funds would, ere long, permit of its secretary's being made independent of his profession. The duties of that office were now become so numerous and weighty that no person could be expected to perform them in connexion with an extensive practice of his own.—(Hear, hear.) Dr. Jeffreys then sat down, after proposing "The health of the Lord Mayor and Corporation of York."—(All the honours.)

Mr. Alderman Hudson replied, assuring them that the corporation, as a public body, were but

doing their duty in receiving and fostering the members of a profession, of which, indeed, the country might well be proud; and happy he was to receive them in a magnificent hall, worthy of an association of princes—a hall which denoted the taste and skill of the ancient citizens of York;—(Hear;) and to present to their inspection those objects of public interest and curiosity with which the city so abounded.—(Hear.) He repeated the delight with which their honourable guests had been received, and further assured them that there was no set of men more willing to avail themselves of the advice and assistance of the medical profession than were aldermen.—(Laughter.) He could not say whether that was to be accounted for by the general habits of aldermen; but this he could say, that they often required such assistance, and were always most grateful for it.—(Renewed laughter.)

The chairman next gave, "The Archbishop and Clergy of the Diocese of York."—(Usual honours.)

The Very Rev. the Dean acknowledged the toast in an impressive reply. The assemblage of that day, he observed, was of no common cast: it was unusual to see so many gentlemen of high education, deep research, and valuable experience, collected in one room, from various parts of the kingdom, and belonging to various sects of Christians. When such an assemblage joined so cordially in paying a compliment to the body of the clergy, it was to be inferred, with pride and satisfaction, that the ministers of the Establishment had, by general consent and acknowledgment, done their duty in a manner which became their high calling.—(Applause)—assuming to themselves no impertinent superiority, but endeavouring to promote the cause of good fellowship and brotherly love. In return, he wished to bear testimony to the high character of the members of the medical profession, and more particularly of those among whom he lived; he constantly saw them in their respective churches, performing their religious duties; and he often heard of the valuable services which they rendered when, by pious exhortations, they persuaded their dying patients to be prepared for the awful changes to which humanity was subject. Herein they imitated the Physician of souls, whose praise was in the gospel; like him they laboured to assuage the pains and sorrows of the sick and miserable, and to convince their fellow men of the desirableness of religion. Of them could be said,

"Utile ille labor per quem vivere tot ægri;
Utilior per quem tot deditur mori."

Having again feelingly thanked the company for the honour he had received, the very rev. gentleman resumed his seat amid great applause.

The chairman then gave "The Dean and Chapter," which was also received with the honours, and acknowledged by the Dean.

Mr. Belcombe, one of the vice-chairmen, proposed "The health of Dr. Stead and the other Vice-Presidents of the Association."—(Three times three.)

Dr. Barlow replied; and, after bearing additional testimony to the great kindness with which the association had been received in York, concluded by proposing "The health of Dr. Goldie, our excellent President."

The chairman briefly replied, declaring his wish that some more competent member of the profession in the city should have been selected for the high honour of the presidency; but adding, that his best wishes were for the advancement of the society, and he hoped to have the pleasure of meeting his audience at Exeter during the next anniversary.—(Cheers.)

Dr. Simpson then proposed "The health of Dr. Streeten," with thanks for the very able, useful, and highly talented retrospective address delivered by him at this anniversary.—(Three times hree.)

Dr. Streeten replied, thanking the meeting for the kind warmth of feeling which had been evinced towards him. Upon an occasion like the present, something more than the mere acknowledgment of a toast was probably expected from him; but he felt himself incompetent to reply in a way in which it ought to be done in justice to his own feelings. He had felt exceedingly diffident of his abilities in the performance of the task which had been allotted to him, and owing to its considerable importance he had almost shrunk from the work before him; but the very kind manner in which they had received his humble efforts were to him most satisfactory, and the "winter of his discontent was thus made glorious summer by the sons of York."—(Cheers and laughter.) After remarking on the hospitality and kindness with which the association had been hailed in York, Dr. Streeten concluded by proposing "The health of the Local Council, and Mr. Husband, the secretary."

Mr. Husband replied.

The Chairman then gave "The Recorder of York."

The Recorder returned thanks, and made humorous allusions to the medical profession, the members of which, he observed, judging from the great number of healths which they drank, must certainly be the most disinterested gentlemen of any he knew. (Laughter.) But, unfortunately, they did not practise what they preached—their acts did not square with their profession—for, had any of that company seen him that morning in his private room, they would undoubtedly have recommended him to nothing so urgently as a nut-ton chop and a glass of water; whereas, on the present occasion, he had seen before him a long vista of some sixty or seventy dishes, from the princely supply of turtle-soup, turbot, venison, &c., down to the humble cutlet, and backed by champagne and the most delicious adjuncts—all of which these abettors of fasting and temperance seemed to have discussed with infinite *gusto*. (Laughter.) The speaker concluded by a deep-drawn sigh for consistency.

"The Universities of the United Kingdom" was next given, to which Dr. Fisher of Cambridge replied, and alluded generally to the great names which had been associated with that university. In speaking of the improvements which had taken place in our day in the faculties of physic in Cambridge, Dr. Fisher observed:—"At the time when Professor Haviland was made regius professor of physic, the power of conferring medical degrees rested solely in him; he diminished, however, his own influence, and divided the authority as well as its attendant responsibility with the professors of chemistry, botany, and anatomy, and had thereby not only extended the system of in-

struction, but rendered the examinations (and having myself obtained several diplomas elsewhere, I can speak from experience,) as efficient as a practical art admits of, and as comprehensive as the state of science requires. He has associated with him Professor Cumming, whose character as a chemist was as estimable as his character as a man; and only those who knew him could appreciate the force of the expression. He has also associated with him Professor Henslow, whose name is dear to every lover of natural history, and who, in his recent researches on the diseases of wheat, if he has not added another powerful agent to the *materia medica*, has at any rate dragged into observation a poison, the effects of which are not less terrible than its operations are insidious, seeing that it lurks in the midst of the most important aliment of man. An anatomical museum has lately risen up in Cambridge; and whilst on the one hand it attests the liberality of the university, (which is by no means rich,) and the interest it takes in the progress of anatomy,—on the other, its extraordinary development will, so long as the museum lasts, be a faithful witness to the indefatigable zeal and comprehensive attainments of Professor Clark, than whom I have no hesitation in saying there exists nowhere a more disinterested, and I might from experience say, a more generous labourer in the field of science."

After some further remarks, Dr. Fisher sat down amid applause.

The following toasts then ensued:—

"The health of Mr. Sheriff Walker;" who replied.

"The York Philosophical Society," acknowledged by Dr. Wake.

"The delegates from London, Ireland, and the North of England;" Dr. Brown replied.

"The Institutions of York," "The Vice-chairmen," and "Our next meeting at Exeter."

The company then left the dining-room, and proceeded to an adjoining apartment, where coffee, tea, and other refreshments had been amply provided: here a most agreeable and enlivening *conversazione* took place, with which the proceedings of the anniversary meeting terminated.

PROVINCIAL

MEDICAL & SURGICAL JOURNAL.

SATURDAY, AUGUST 21, 1841.

THE Anniversary Meeting of the Provincial Association, of which we give an account in the present number, has proved an important one in many respects, and the proceedings are calculated materially to forward the progress of the great questions which now engage the attention of the medical profession. The general tone of the meeting, the unanimity and good feeling which prevailed, the firmness and decision with which the claims of the profession were advanced, and

the moderation and temperate character of the measures advocated, cannot fail to impress those who are opposed to reform with the conviction, that while the association will adopt no hasty measures, it will proceed with steady perseverance towards the attainment of such substantial reforms, both in education and in government, as are really called for.

In no respect has the sound judgment, which distinguishes the majority of medical practitioners, been more decidedly displayed than in the refusal, on the part of the meeting, hastily to pledge the association to a course of proceeding, the tendency of which has not been sufficiently considered. The association afforded no countenance to the views of those who, however well intentioned, have certainly permitted themselves to be hurried away by mistaken zeal, and in their desire for the immediate removal of existing evils, lose sight both of the end in view, and the great principles by which this end can alone be attained. It was of importance, for the sake of the reform question, that the meeting should not allow itself to be carried away by the warmth of special pleading, and it was of importance for its own sake, as an independent body, that the declared intention of compelling the association into the adoption of measures of which a large portion of its members disapprove, and of the bearing of which, a still larger portion are ignorant, should not be yielded to.

By the adoption of the report of the council, to which no opposition was offered, and by the reception of the report of the reform committee, which was unanimously agreed to, the fullest sanction has been given by the meeting to the steps taken by those bodies since the last anniversary. Upon what then, it may be asked; was there any difference of opinion indicated, if not upon these important documents? Where did the cloven foot show itself? How were the seeds of dissension and discord to be scattered, their growth to be fostered, and the interested objects of the wily agitator to be promoted, since no exception could be taken to the proceedings? Simply, as it appeared, upon the mode of action recommended by the committee. The question was taken up, not by any members of the association as members, but by a part of the deputations from the British and Irish Associations,—the one professing to represent the opinions of certain practitioners resident in the metropolis and its immediate vicinity, the other, those of the medical profession on the other side of the Channel, but both the one and the other manifestly unconscious of an extraneous influence which has been apparent to all who are not blinded

by the mystification in which its operations are sedulously veiled. Of those gentlemen themselves we wish to speak with all due respect, not only on account of their being engaged in the same arduous struggle with ourselves, but also from consideration to the bodies which they were respectively deputed to represent. The report of the reform committee, as we understood, met with their full approbation; the memorial to Her Majesty's ministers recommended therein for presentation, and at their suggestion reserved for separate consideration, was also approved of. But to satisfy the requirements of this extraneous influence, by which the association is to be compelled or cajoled into the adoption of certain schemes, must have something more effected than what had been recommended by those who had maturely weighed all the circumstances of the question. The memorial, it was urged, embodied an action, and again was by the same individual characterized as merely speculative. It could not be adopted with the report, because it was taking a step in advance; it was, nevertheless, decidedly approved of, and yet it was afterwards objected to as purely speculative, as a proceeding altogether inactive and of no effect.

The real question before the meeting was, in fact, that some mode of action should be adopted. The report had declared certain principles; the object of the memorial was to solicit the attention of the government to those principles, with the view of their being thus brought before the legislature and ultimately carried out. The reason why the committee were induced to recommend, and the association to sanction this proceeding, was the obvious one that none other was likely to prove effective in the attainment of the objects which nearly all classes of the profession are assiduously seeking. The introduction of any measure drawn up by a private member of the House could, after all, be only a private proceeding, and, as we have seen in the bills already so introduced, could not be expected to represent the feelings of the profession, or, indeed, any influential portion of it. When taken up by the government, the question must receive more than a mere private consideration,—more than a reference to a few individuals. The minister to whom it is intrusted is a responsible person, and will naturally take the advice of those who are competent to give it, not selected from one or more associated bodies of the profession—not exclusively of corporate institutions,—but if he be upright and honest in his endeavours, and sincerely desirous of placing the question upon an equitable footing, (and, unless he be so, we can conceive no possible reasons why he should trouble himself to interfere in it at all,) he will endeavour to collect

the opinions of all those for whose interests, in conjunction with the public welfare, he undertakes to legislate.

Such, then, is the course recommended by the reform committee of the Provincial Association, and adopted by the general meeting. By this means an impartial inquiry is more likely to be gained than by any other plan hitherto recommended. The attention of the legislature will be secured. No partial or exclusive interests will be allowed to prevail in the final adjustment of the question, for, as we have before remarked, it is not to be supposed that the government will suffer itself to be dictated to by those corporations which, as at present constituted, have shown themselves so lamentably deficient; and on the other hand, it is manifest that the wild and impracticable schemes of those whose zeal outruns their discretion, cannot for one moment be entertained. The interests of all classes of the profession will be consulted, and while the character of the general practitioner is raised, his interests protected, and those privileges, both individual and corporate, secured to him, to which he has an undoubted right, there will be no breaking up of all existing institutions, no levelling of grades, no swamping of the physicians and surgeons by indiscriminate enrolment and incorporation with the more numerous class. On the contrary, we may hope that the welfare and respectability of each class will thus be promoted and upheld, the interests of the general practitioner maintained, and the privilege secured to him, under certain regulations, of attaining to the higher grades, if such be his wish, at any period of his professional life, without his being compelled or authorized to apply to a foreign university for a degree, or going through a protracted course of academical study at home.

CASES

FROM THE EARLY NOTE-BOOKS OF THE LATE

SIR ASTLEY COOPER, BART.

EXTRACTED WITH PERMISSION OF D. B. COOPER, ESQ.

No. IX.

DROPSY.

MR. T—— T——, coal-merchant, had an attack of inflammation in the chest, which was followed by dropsy. The water collected in the pericardium, one cavity of the pleura, in the abdomen and lower extremities.

During sleep he was attacked with spasms in his chest, which threatened suffocation, and as the water increased in quantity, they increased both in degree and frequency.

Being consulted about him, I advised scarifying the lower extremities; but being fearful of

mortification from the pericardium being distended, and the heart oppressed, if the feet were scarified, I punctured the legs in three different places on the calf. Immense quantities of water were drawn off, and some inflammation succeeded, but it was easily kept under by proof spirit with chalk dissolved in it.

The punctures continued open about a week.

SALT-WATER POULTICE.

This poultice is an excellent application where absorption of extravasated matter is required, or when it is wished to occasion an abundant discharge, to quicken the action of a deep-seated abscess. Miss —— bruised the middle and forepart of the leg, occasioning a large ecchymosis and a small sore. The inflammation of this sore spread to the ecchymosed part, which suppurated, though slowly and imperfectly. Tired of their first surgeon, as she had been confined for three months, I was sent for. A small sore at this time appeared on the shin, and a swelling on the outside of the leg, on pressing which, matter was discharged at the sore.

I ordered her a salt-water poultice, a table-spoonful to a pint. In three days the swelling was lessened, but the discharge increased. I then ordered two table-spoonfuls of salt to a pint of water, and in two days the swelling was gone, and the discharge had nearly ceased.

The first proportion was then ordered, and it rapidly filled up and healed.

SMALL-POX.

I inoculated the child of a Mr. —— . Although it was well evacuated, it had a great deal of fever and violent eruption. It was very restless, crying for hours, and I saw that this increased the fever, and was rapidly exhausting the child. I therefore ordered it opium, which threw it into sleep, lessened the fever, and restored its strength. I repeated the dose when it had completely awoken.

I inoculated two children for Mr. ——, druggist, a boy and a girl, on Sunday. On Wednesday the boy's arm was inflamed, but the girl's was not, the scratch having disappeared. On Thursday, that is, the following day, I inoculated the girl again, and on the following Saturday it was inflamed. On Sunday, that is, the eighth day, both children sickened of the small-pox, and went well through the different stages of the disease. It seems from this case that it must be the original matter deposited which produces the small-pox, for this girl's arm had formed no matter at the time when she sickened.

WANT OF SYNOVIA.

A servant of Mr. ——, Queen Street, had a stiffness come on in both her knees, without any visible external appearances of disease. The bones grated upon moving them over each other in the joint, and if she used her legs she complained that considerable heat was occasioned by it. No application was of any service to her.

CUT-THROAT.

Monday, September 26, (1796,) I was called to a man who had attempted to destroy himself, by cutting his throat. I found him sitting upon a

stool in his cellar, with a wound in his throat about four inches from angle to angle.

He had used a penknife for the purpose of destruction, which had passed between the os hyoides and thyroid cartilage, and through the posterior part of the pharynx to the spine. The epiglottis was separated from the larynx, and the glottis was very visible.

I sewed up the wound by three stiches, which left interstices sufficient to suffer the escape of blood, and covered the whole with lint laid lightly on.

He was unable to speak, and therefore we could only guess at his feelings, but he did not seem to suffer much pain.

I gave him a spoonful of fluid to learn if he could swallow, but it excited so much cough that I did not choose to repeat it.

As inflammation arose it brought on difficulty of breathing and frequent cough, the latter of which excited fresh hæmorrhage, and brought on suffocation, and he died about two hours after the act had been committed.

The division of the posterior part of the pharynx would have prevented his swallowing had he lived longer, and the irritation in the glottis, which everything in the throat would have produced, (from the absence of the epiglottis covering it in its natural state,) would have kept up a constant cough and great inflammation.

IMPERFORATE INTESTINE.

A child was born apparently healthy, but was found to reject, in a few minutes, everything that it took into its stomach. A bougie was passed into its rectum, and I found no obstruction. It was ordered castor oil and various other purgatives, which almost immediately were returned. It wasted away rapidly, and died twelve days after its birth.

Dissection.—I opened it on the day of its death. On cutting into the abdomen, an intestine of great size presented itself—two inches in diameter—which was found to be imperforate. It was the jejunum, which had this blind extremity; it was placed about ten inches from the origin of that portion of the intestines.

The portion of gut, naturally next to this, but still in this infant entirely separate from it, was not larger than small whipcord; and this, after passing six inches, was obstructed in the same manner. The lower part of the ilium and the large intestines, which were without disease, were, however, not larger than a goose-quill, from having never been distended. The gall-bladder was quite empty, but the imperforate intestine was full of bile and medicine.

INFLAMMATION OF ABSORBENTS.

Mr. — had a splinter of wood pass under the nail of his middle finger, it produced suppuration there, and hard cords up the fore-arm. One of the lymphatics on the elbow suppurated, forming a very large quantity of matter, and a broad line of inflammation extended to the axilla. Fomentation and poultices were used. The abscess opened early, and the case terminated well, but the symptoms of constitutional irritation were so high as to threaten his life: for many hours he was in a delirious state.

Mr. —, from a slight blow on the thumb, had inflammation come on over the tendon of the extensor sec. internodii. Leeches were applied, but the inflammation extended to the wrist and upwards to the axilla. I ordered extract of colocyth and calomel, made a small opening in the swollen part, and applied fomentations of chamomile flowers, which in a few hours relieved him.

FRACTURE WITH DEPRESSION.

Saturday, October 5th, (1799.) A child, in Rathbone Place, received a hurt from a fall on the head. The left parietal bone was fractured and depressed, without coma, but with sickness. I passed an elevator under the bone, raised it into its place, and the edges of the wound became in part united, and covered the fracture.

On the Friday after the accident the child was fretful, but still sensible; but on the evening of that day it became convulsed, and during the night had a hemiplegia come on, on the opposite side of the body to the accident.

I saw it on the Saturday morning, and found it perfectly insensible—paralytic, but convulsed on its right side. The edges of the wound were separated, and a quantity of matter issued from the fracture, which immediately relieved the child. Some opium and antimony were ordered, and in twelve hours the child was sitting up in bed, sensible, and the paralytic affection almost entirely gone.

Sunday. Still better.

The child continued without hardly any alteration of its symptoms for ten days, when she was seized with convulsions and expired. Upon opening the head I found suppuration under the injured part of the head, in the substance of the brain.

ON DEEP-SEATED ABSCESS OF THE BREAST.

BY JONATHAN TOOGOOD, ESQ.

SENIOR SURGEON TO THE BRIDGEWATER INFIRMARY.

THERE is a disease of the breast, differing from the common milk abscess, which must, I apprehend, be of rare occurrence, having seen only four or five examples in the course of my life. All the cases which have fallen under my observation have taken place during suckling, and generally soon after delivery. It does not exactly correspond to the description of the deep-seated abscess mentioned in Mr. Hey's book, the cavities of which were filled with a soft purple fungus, although in other respects it nearly resembles it, and both are cured by the same plan of treatment.

This abscess forms in and behind the mammary gland, more slowly and with less pain than the common milk abscess; it does not come to the surface so soon, neither is the skin so much inflamed or the fluctuation so distinct, consequently it is not opened early, but burrows behind and around the gland, breaking in several places, and forming sinuses in a variety of directions, none of which show a disposition to heal. The usual treatment is unavailing in these cases; a great discharge is constantly kept up, which soon affects the general

health, and reduces the patient to a state of great debility, which I believe would destroy her, unless proper means are resorted to, to arrest the disease. The first case of the kind which fell under my care, was that of a lady who had been confined three months, and was much exhausted by pain and constant discharge. The breast, which was naturally full and fleshy, was not much increased in size, but had an unhealthy appearance, with several openings leading to deep sinuses, communicating with each other in various directions. At this time, I was not aware of the obstinate nature of the disease, and endeavoured to heal these by injections of sulphate of zinc, stimulating frictions, and pressure evenly applied with plaster and bandage; but all my efforts were ineffectual, and I was under the necessity of dividing all the sinuses, which ran through the whole substance of the breast, so that it was literally cut into strips. The operation was a serious one, and attended with considerable hæmorrhage, but the good effects were presently apparent, for as soon as my patient had recovered from the immediate shock of the operation, the wounds assumed a healthy aspect; she rapidly got better, and recovered perfectly in six weeks. At her next confinement she came from a considerable distance to place herself under my care, and as there was no hope of her ever being able to furnish milk again from that breast, I covered it carefully with a diachylon plaster as soon as she was delivered, which completely suspended the secretion of milk in that breast, although she was able to nurse as well as usual in the other, and she passed through her confinement without the least inconvenience. Since that time she has had several other children, and uniformly adopted the same course with the like success. I have met with three other cases which were treated in the same manner, with the same result. I was consulted on another case, in which the patient refused to submit to the plan proposed, and tried various remedies under different practitioners, but was at last obliged to have the same operation performed. If I saw one of these cases in an early stage, I should not hesitate to make a free opening the instant the formation of matter could be ascertained, in the hope of preventing so painful and severe an operation.

Bridgewater, August, 1841.

ON THE
PHYSICAL ALTERATIONS OF THE BLOOD
AND
ANIMAL FLUIDS IN DISEASE.

By M. ANDRAL.

No. VIII.

Alterations of the blood in fever and inflammation.

BEFORE we proceed to investigate the condition of the blood in fever, it may be well to observe, that fevers are divided into idiopathic and symptomatic; the latter consist in certain febrile symptoms connected with inflammation, congestion, and severe pain; idiopathic fever may exist,—1st, without any lesion of the solids; 2nd, with an evident

lesion, but one which is not the cause of the disease; thus carbuncles and bubo in the plague, and ulceration of the intestinal glands in typhoid fever, are the effects of some cause with which I am unacquainted. Let us now turn our attention to the state of the blood in symptomatic and idiopathic fever.

1st. If the fever be symptomatic of inflammation, the quantity of fibrin is augmented; but this increase does not depend on the fever, for there are several fevers, just as intense and long continued as the inflammatory, in which we observe no increase of fibrin; the cause of the increased quantity of fibrin is not easily discovered, and to assign any particular one, in the present state of our knowledge, would be hasty.

2nd. When the fever does not depend on inflammation, we have no augmentation of fibrin, be it ever so severe or prolonged.

3rd. Should simple fever become complicated, during its course, with any inflammatory affection, then the fibrin increases.

4th. Fever and inflammation may co-exist, the latter being an essential element of the former, as inflammation of the skin in small-pox, measles, scarlatina, &c.; these affections of the skin, which perhaps should not be ranged under inflammations, are unattended with the characteristic increase of fibrin; the same remark applies to ulceration of the intestines in typhoid fever; however tenaciously some physicians may adhere to the inflammatory doctrine of typhoid fever, it is certain that the ulcerations of the intestinal glands are not accompanied by that increase of fibrin which attends other inflammatory diseases. Hence, whenever fever co-exists with inflammation, and together with it constitutes one of the elements of the disease, the fibrin of the blood is not increased; for example, small-pox, typhoid fever, &c. But it is far different when inflammation springs up during the course of the fever, or is one of its effects.

In a certain class of fevers, the chief cause seems to be the excessive richness of the blood. Inflammatory fevers, of a few days duration, depend upon this cause; the ancients considered this as an idiopathic fever, but it is really a symptomatic one. But we may ask, does the cause of the disease reside in the solids, or in the fluids? To excessive richness of the blood, as just mentioned, the disease has been attributed, but this richness consists in an increase of the globules, not of the fibrin. When Pinel published his nosography, the humours were altogether neglected, yet he located inflammatory fever in the blood-vessels; at a later period, it was connected with gastritis and enteritis; afterwards with inflammation of the heart and arteries; Tomasini still adheres to the latter opinion. It has also been denominated plethoric or hyperæmic fever, in conformity with the ideas of humoral pathology.

However, this is not the only fever in which the globules are augmented; the same increase occurs at the commencement of typhoid fever, measles, and scarlatina. We do not find this augmentation of globules in inflammation; it exists in the middle period of fevers.

In continued fevers, the febrile movement persists even when the globules have fallen to their normal standard, or below it; as a remarkable illustration, M. Andral cites chlorosis, in which

the quickness of the pulse augments in proportion to the diminution of the globules and progress of the disease; febrile symptoms now appear, the skin gets hot, the pulse excessively frequent, and the patient dies. After death, we find no very evident traces of disease in the viscera.

Fever may exist with every possible condition of the globules, (normal state, increase, diminution;) we may admit, although we cannot prove it clearly, that some fevers depend on increased richness of the blood; others, again, exist with a remarkable diminution of the globules; in a third class the fever persists, although the globules have been diminished by bleeding and abstinence.

If we now examine, in a comparative way, the condition of the various elements of the blood during fever, we shall find that the simple presence of fever never determines an increase in the quantity of fibrin; that fever may exist; 1st, when both fibrin and globules are in normal quantity; 2nd, when the globules alone are increased, the fibrin remaining unchanged. The quantity of fibrin may fall, during typhoid fever, even so low as 0.9; at an early stage of the disease, or when it is mild, the fibrin remains unchanged, but falls as the fever is aggravated; when it assumes an ataxic character, and symptoms of prostration ensue about the fifteenth day, the fibrin also falls, and hence we might be inclined to think that its diminution depended on the duration of the disease; but this is not the case, for in acute inflammation the quantity of fibrin is increased, even at an advanced period, and in spite of bleeding and abstinence from food; in fact, the condition of the blood in typhoid fever is exactly the reverse of that in inflammation; in the former, while the globules and fibrin are undergoing a diminution, the quantity of serum is increasing; hence, this is a disease in which the blood is remarkably impoverished.

PHYSICAL PROPERTIES OF THE BLOOD IN FEVER.—During fever, the separation of the blood into serum and clot is imperfect, because the latter is soft and retains the serum. The serum, again, is frequently of a reddish colour, from an admixture of globules, and the clot is large; this latter condition may depend—1st. On the increased quantity of globules which frequently attends the development of fever. 2nd. On the quantity of serum retained by the clot. 3rd. On the diminution of fibrin, and consequent want of contractility in the clot. The coagulum may, in many cases, preserve its usual degree of firmness, but the latter is never increased; more frequently it is diminished; or the clot may be quite soft and diffuent; a perfect buffy coat never forms during fever, unless there be inflammation; in typhoid fever and small-pox we find a thin, greenish layer, which is a mere rudiment of buff.

CONNEXION BETWEEN THE STATE OF THE BLOOD AND THE VARIOUS SYMPTOMS OF FEVER.

—Fever may run through its different stages without presenting any complication, but in other cases we have a series of phenomena, which are, in some measure, connected with the febrile disorder, though not actually produced by it; these are inflammation, congestion, hæmorrhage, and gangrene.

Some inflammations occur accidentally, during the course of fever, and are not attended with any change in the state of the blood; other febrile disorders, small-pox, measles, &c. are always accompanied by certain lesions which are commonly re-

garded as inflammatory; but in these also, the blood undergoes no change; finally, in other fevers we have inflammation and its characteristic effects on the blood.

Congestion is a frequent complication of fever, and if we endeavour to trace a connexion between this congestion and the state of the blood, we are led to conclude that the former depends on a loss of equilibrium between the fibrin and globules. The spleen and other parenchymatous organs are very often the seat of congestion in typhoid and typhus fever, and in small-pox; now the alteration of the blood observed in patients labouring under those diseases, is a diminution in the quantity of fibrin as compared with the globules.

Hæmorrhage, also, is a frequent complication of fever, while it rarely occurs in inflammation; if we compare typhoid fever and pneumonia together, this fact will at once strike us; the severity of the hæmorrhage, likewise, seems to follow the violence of the fever, as exemplified in typhus fever, plague, and yellow fever.

Gangrene occurs less frequently than hæmorrhage, congestion, or inflammation, but often occurs in typhus fever and plague; we may also remark, that diseases accompanied by carbuncle, acute glanders, and the fever of purulent absorption, are general febrile disorders which probably depend on alterations of the blood. The ancients admitted morbid conditions of the blood under the circumstances just alluded to; they denominated "putrid" that state of the system in which the vital force seemed to sink under the influence of physical changes and the decomposition of the blood. Borden taught that typhoid fever was connected with a general state of the system, which he calls *acute scurvy*; and this expression is, in some measure, correct, so far as the state of the blood is concerned. A diminution in the quantity of coagulable matter of the blood is a general character of all fevers; in fevers from miasma we have, first, absorption of the poison; and next, diminution of fibrin, the only striking change which the observant physician can discover. The same character exists in typhoid fever, but we cannot assert that it is the cause of the disease, since it is developed with it, and becomes more evident only as the symptoms increase.

From the preceding observations, we may deduce some very serious objections to the different modes of treatment of typhoid fever. Were we to consider the state of the blood only, we should reason in the following manner: in inflammatory fever there is an augmentation of the globules, and as blood-letting is the best mode of reducing the quantity of globules, we should bleed the patient. In typhoid fever we have a similar increase of globules, and should therefore apply the same remedy; but we must never forget in typhoid fever the general derangement of the economy which precedes the alteration in the blood, and we cannot say what effect blood-letting may have on this unknown element of the disease; hence we conclude, that the treatment of typhoid fever can only be established by clinical experience.

STATE OF THE BLOOD IN INFLAMMATION.—

The condition of the blood in inflammation differs according as the latter is acute, subacute, or chronic.

Fibrin.—The fibrin is always increased during inflammation; it may vary from 4 to 10,

Globules.—These are not necessarily augmented; generally speaking, they retain their normal standard; in rare cases are increased; in others diminished. As the inflammation advances the globules may fall, but this is the effect of blood-letting and abstinence. We have already seen that plethoric persons are not more disposed than others to inflammation.

Solid contents of serum.—The albumen may be increased, but not necessarily, and the inflammation may attain a very high degree of intensity, without augmentation of the serum.

Physical Properties.—The clot is generally very firm and tenacious, because the fibrin has expelled a great portion of the serum; in fever, on the contrary, the serum is retained, and renders the clot soft and voluminous. In inflammation the clot is small; for as it contains a large proportion of fibrin, the globules are firmly pressed together by the contraction of the coagulating part of the blood.

PHENOMENA OF INFLAMMATION EXPLAINED.

Whenever inflammation terminates in suppuration, the quantity of fibrin increases; hence, the formation of pus and augmentation of fibrin accompany one another; we might, indeed, add another phenomenon, viz. the formation of false membranes. The fibrin is also augmented in cases where the serum is turbid and mixed with flocci; on analysing false membranes they are found to be composed of fibrin, and this is confirmed by a comparison of false membranes with the buffy coat of the blood, to which they bear a perfect resemblance.

Pus is a compound fluid, the composition of which is not yet accurately known; we are unable to assert that it is formed of fibrin, but in certain kinds of pus we find a white substance analogous to fibrin. We may now ask, how does the composition of the blood throw any light on the formation of false membranes? In the first place, we are never able to detect any increase in the quantity of fibrin until the symptoms of inflammation are quite patent; perhaps the increase is too small in the beginning to be appreciated. In some cases we cannot discover the exciting cause of inflammation, in others we can, as a blister, for example; here we find no antecedent change in the blood; hence we may conclude that inflammation arises independently of any precedent modification of the blood; the same occurs in cases of burns.

Fever exercises no influence on the changes which take place in the composition of the blood. According to Tomasini, inflammation cannot arise unless the constitution has first undergone some change; every local disease is preceded by some general condition, which the Italian physician calls diathesis.

REMEDIES EMPLOYED IN INFLAMMATION.

Our task would be incompletely executed, did we not examine how far the state of the blood may throw some light on the treatment of inflammation; but we must consult experience first, and then theory. Were we to depend on the latter, we should conclude that blood-letting is less indicated in inflammation than in fever, because its effect is to diminish the quantity of globules, and

not the fibrin; but, again, we would observe the value of bleeding must be decided by experience. Medical opinions are much divided on the efficacy of revulsives in inflammation; some assert that it is increased by blisters; this idea is principally supposed by Tomasini; others think, on the contrary, that blisters act beneficially, by determining an irritation of the skin; others, finally, would limit the use of blisters to certain periods of inflammation. Experience, in fact, shows that blisters aggravate inflammation, if applied at an early period: even in chronic inflammation they are injurious when unseasonably employed. Reasoning on the facts derived from humoral pathology, we should say that large blisters must increase the quantity of fibrin, since they excite local inflammation, occasionally accompanied by fever; but independent of this first effect, we have another, consisting in the abstraction of fibrin from the circulation; but this second effect is never sufficiently great to counteract the former one.

Boiling water, tartar emetic, &c. act in the same way as blisters; sometimes nothing but serum is removed from the blood; in other cases serum and fibrin. The dermis acts as a kind of filter, and prevents the globules from passing through. Some remedies have the effect of determining perspiration to the skin; others determine to the intestines. Aloes produce copious liquid stools, composed chiefly of serum coloured by the bile; other purgatives excite the secretion of mucus, or merely of bile; it is difficult to say what effects such remedies produce on the blood. Some physicians regard the preparations of mercury as antiphlogistic. Granting this to be the case, can we explain their action? Mercury, it is said, renders the blood less coagulable, in other words, diminishes the quantity of fibrin; but this is mere hypothesis. In the next article will be examined the state of the blood in congestion and hæmorrhage.

CASE OF NON-MALIGNANT FIBROUS TUMOR OF THE SUPERIOR MAXILLA.

REMOVED BY EXCISION.

By CHARLES LINGEN, Esq.

SURGEON TO THE HEREFORD INFIRMARY.

(Read before the York Meeting of the Provincial Medical and Surgical Association.)

On April 29, 1841, Eliza Roberts of Newton, æt. thirty, married, and having several children, was admitted into the Hereford Infirmary, under my care, with an indurated fibrous tumor, embedded in the left superior maxilla, and apparently having its origin about the roots of the two lateral incisors. Her general health is not bad though delicate, and has been better since marriage.

The tumor has now attained the size of a hen's egg: its base occupies the site of the two left lateral incisors, which have fallen out two or three months since, but has greatly extended that space by pressure, so that the teeth, right and left of the tumor, are now separated by $1\frac{1}{2}$ in. or thereabouts, and the tumor extends itself to the right beyond the septum of the nose, and, to the left, overlaps as it were, the first bicuspid; within the cavity of the mouth it protrudes, but not deeply, half-way along

the hard palate; the summit reaches nearly to the floor of the orbit. To the touch, it feels uniform and very hard; is not painful, and has not been painful from the very first, and has no tendency to bleed; two pale ulcerations mark the spots whence the teeth dropped out.

She first observed it seventeen months since, soon after the birth of her last infant, which she continued to nurse up to this time; it was *then* small and hard, and as it gave no uneasiness, it scarce attracted her attention for the first six or eight months, during which time it made but little progress; it now began to grow faster, and the teeth to loosen, but for the last month only the augmentation in its bulk has been rapid.

The operation.—On May 7, the business of weaning being now ended, I removed the tumor, assisted by my colleagues, Messrs. Braithwaite and Cam, and other friends. The right central incisor and last bicuspid were first extracted; an incision was now made through the integuments to the bones, from a little below the inner angle of the eye, passing round and detaching the ala nasi, and terminating along the central fissure of the lip; the other incision ran from the prominence of the cheek, and was made to fall just within the angle of the mouth: the flap which resulted from these incisions was turned up and detached from the tumor, the infra-orbital nerve being divided; the scalpel was next passed along the floor of the nares, dividing the septum; and the nose being held to the right side, one blade of Liston's strong cutting-forceps was introduced within the right nostril, opposite to the place just occupied by the extracted incisor, the other within the cavity of the mouth, and were thus made to divide all the structures between them, comprising the alveolar ridge, hard palate, &c.; the ascending plate of the superior maxillary, and that part where it joins the floor of the orbit, were next divided in the same manner; the forceps were now applied to the alveolar ridge, whence the bicuspid was extracted, and this part of the bone divided upwards as far as the floor of the orbit. It now remained to lift the tumor from its bed, in doing which I experienced some difficulty, (much greater, I imagine, than if I had sacrificed the whole of the superior maxilla,) but it was soon accomplished. The cavity of the antrum was now exposed, and some suspicion being entertained that its aspect was not healthy, I was induced to remove what remained of it, with the sacrifice of two other teeth; but I am disposed to doubt the necessity of this latter procedure, as the tumor itself was evidently removed entire. The hæmorrhage was not great, and though two small vessels were tied, they were cut away before dressing the wound. The cavity was filled with dossils of wetted lint, and the flaps brought together by three twisted and several smaller sutures; water dressings were applied externally, and no plasters used. She was able at once to swallow, and was very little shaken by the operation.

20th. She may now be considered *well*, and will leave the infirmary in a few days. The febrile action following the operation was remarkably slight; indeed, she has not had an unfavourable symptom. For some days there was stillicidium, which made me fear the lachrymal sac had sustained some injury, but this has disappeared entirely. The sensibility of the flap is much obtunded by the loss of the infra-orbital nerve. She swallows solids with

ease, but liquids with some difficulty; in this particular also she improves; there is comparatively little deformity, and her articulation has ~~not~~ suffered materially. Every line of the flap united by the first intention; the smaller sutures were removed in eighteen hours, the twisted ones in thirty.

July 12th. I have seen my patient repeatedly since she left the infirmary. She now experiences still less inconvenience as respects articulation and deglutition: in fact, almost none. Some granulations sprang up in the nostril, which soon yielded to the application of nitrate of silver.

Aug. 2nd. I have heard nothing of Roberts since the last date.

August 2, 1841.

ON THE LOCAL ABSTRACTION OF BLOOD IN GONORRHOEA,

OCCURRING IN THE MALE SUBJECT.

By P. BENNETT LUCAS, Esq.

I WAS led to try the effects of taking blood from the penis, in the acute stages of gonorrhœa, by opening its dorsal vein, in consequence of the very free and full anastomoses which anatomy reveals to exist between it and the venous plexus, which so essentially contributes to form the corpus spongiosum urethræ.

Some time since, when at work in the dissecting room, I inserted a pipe into the vena magna, for the purpose of throwing some injection into it, with a view to make a preparation of the penis. Having secured the pipe by means of a ligature, and having next distended, by inflation, both corpora cavernosa, I carefully threw in some tepid water; when, without having used much force, I was not a little surprised to find the water issue from the orifice of the urethra.

To ascertain the nature of this communication between the vein and the mucous membrane of the urethra, I proceeded with more caution, and having distended with air the corpora cavernosa to their fullest extent, and secured the opening by which I did so with a ligature, I placed the organ in warm water, and threw into the vein, with a moderate force, some fine wax injection, until a small portion of it appeared at the urethral orifice. The parts were then placed in cold water, and I examined them the following day.

Leaving as a guide the delicate shred of injection which protruded from the orifice of the urethra, I laid open this canal to the extent of four inches, by dividing its under surface, and cutting through the corpus spongiosum urethræ, which was filled with injection. I then followed the loose shred of wax which lay in the urethra, and found that it led to the lacuna magna; from which orifice the injection evidently made its way into the canal. My next object was to follow the injection in the lacuna, but this I was unable to do with any degree of accuracy, on account of its being very soft. The removal of the mucous membrane was done with facility, being, as it were, moulded on the injected vessels, and only connected to them by the fine sub-mucous cellular tissue in this situation.

Now, I do not wish it for a moment to be in-

ferred from these remarks, that I apprehend any direct communication to exist between the mucous lacunæ of the urethra and the veins of this organ—far otherwise; such a communication between blood-vessels and the mucous lacunæ has never yet been seriously entertained, and in this case was therefore not looked for. But that the most intimate and delicate alliance exists between all the mucous lacunæ and mucous membrane of the urethra and the venous plexus, which forms the corpus spongiosum urethræ, is beyond doubt; and so intimate is this connexion, that it can readily be broken through by the ordinary force of injection—a force which practical anatomists well know veins as delicately organized will resist in other situations.

The hæmorrhage which so frequently takes place in the inflammatory stages of gonorrhœa is derived from the venous plexus in this situation; the blood is always of a venous colour, and by such spontaneous bleeding nature accomplishes the same end which the surgeon does by taking blood from the dorsal vein.

The application of leeches to the under surface of the urethra has often been had recourse to in the inflammatory stages of gonorrhœa, and with benefit; but, at best, this is a clumsy and inconvenient method of detracting blood in this situation: besides, in many cases, particularly in private practice, the position of the patient and the nature of his disease too often preclude their application. When, on the contrary, we take blood from the dorsal vein, we derive it directly from that portion of the urethra which is most affected in gonorrhœa. We can procure in five minutes as much blood as eight or ten leeches could draw in an hour; and, moreover, in the former case we get it *directly* from the veins of the corpus spongiosum urethræ, but in the latter a large quantity must, in the first place, be taken from the veins of the skin itself. Indeed, it is only through the exhaustion of the cutaneous vessels that we can, by the application of leeches, expect to relieve the vessels of the corpus spongiosum urethræ.

I have, in over twenty cases of gonorrhœa, and in one case of spasmodic stricture, opened the *vena magna ipsius penis* with the happiest results. I have in some cases procured as much as ten ounces of blood. The operation is, with ordinary care, an easy one, but unless cautiously performed, a thrombus may occur and prevent our obtaining a sufficient quantity of blood.

Argyle-street, August 16.

ACADEMY OF SCIENCES.

Paris, August 2.

NUTRITIOUS PROPERTIES OF GELATIN.

M. MAGENDIE terminated the reading of a long report on gelatin with the following conclusions:—

1. It is impossible, by any known process, to extract from bones a nutritious substance, which, whether used alone or mixed with other substances, can be substituted for flesh.

2. Gelatin, fibrin, and albumen, when employed singly, will nourish an animal for a very short time, and very imperfectly; generally speaking,

they excite such disgust, that the animals prefer dying from hunger to taking them.

3. When these substances are mixed together in various proportions, they are more nutritious and acceptable; however, they are incapable of sustaining life, for the animals invariably die.

4. Animal flesh, with which fibrin, albumen, and gelatin, are organically mixed together with fat, &c., will support life, when given even in very small quantities.

5. Bones, in their natural state, will also nourish an animal, but the quantity given in twenty-four hours must be great.

6. Every kind of artificial preparation, as boiling in water, the action of hydrochloric acid, and especially the transformation into gelatin, diminishes the nutritious qualities of bones, and sometimes destroys them altogether.

7. The committee, however, are unwilling to pronounce an opinion on the value of gelatin when mixed with other substances, as a nutriment for man. Experience alone can determine this important question.

8. Gluten, when used singly, will nourish an animal completely for a very long time.

9. Fatty substances, when employed alone, support life for some time; but nutrition is very imperfect and irregular; the fat accumulates in all the tissues, sometimes in the form of olein and stearin, sometimes as pure stearin.

August 9.

M. Dumas read a report on M. Dupasquier's method of analysing sulphureous mineral waters. The ordinary methods are not only tedious but imperfect. That of M. Dupasquier consists in adding some starch to the mineral water, and then pouring in an alcoholic solution of iodine; as long as the iodine continues to dissolve the sulphureous element, we have no blue colour, but the latter appears the instant the last particle has disappeared; the quantity of iodine employed will give the quantity of sulphur, for one equivalent of the former displaces one of the latter. The apparatus of M. Dupasquier is simple and not expensive.

EARTH USED IN CHINA AS FOOD.

M. Julien has sent to the Academy of Sciences a specimen of the peculiar earth which is used as food in China, in times of famine. Its colour is white, like that of a chalk stone; it is collected into small masses, easily reduced to powder, has a slight aromatic odour, a sweetish taste, and leaves a sensation of dryness in the mouth. M. Julien says that the earth is found in the province of Kiangsi, and the land is frequently the subject of dispute between the adjacent towns. When nothing but the earth is eaten, it soon produces constipation of the bowels and death; however, life is prolonged much longer than if nothing were eaten. When mixed with equal parts of flour, it produces less constipation.

M. Arago, who presented the specimen of earth, said he had thought that its nutritious properties depended on the presence of some infusoria; but on analysing it, none were found; the earth does not support vegetable life, and no plants are found on its surface.

MEDICAL ASSOCIATION OF IRELAND.

PROCEEDINGS OF COUNCIL.

Report of the Deputies appointed to attend the Anniversary Meeting of the Provincial Medical and Surgical Association.

PURSUANT to a resolution passed by the council on the 22nd ult., we attended the anniversary meeting of the Provincial Medical and Surgical Association, held at York, on the 3rd, 4th, and 5th instant, and, as a deputation from this association, were received by our English brethren with the utmost kindness and courtesy. There were also present at the meeting, deputies from the North of England, and from the British Medical Associations, in conjunction with whom we took part in the proceedings of the general meeting, held on the 4th instant. On that day, a report upon the subject of medical reform (published at length in the Medical Press of the 11th instant) was read and adopted, with the general concurrence of the deputations. It appeared to us, however, as well as to the gentlemen representing the North of England and the British Medical Associations, that the grievances of the profession required something more than the mere enunciation of the abstract truths contained in that able document, and that, for practical purposes, it was expedient that an efficient plan of communication, through official and responsible channels, should be established between the several associations, and that, thereby, an active co-operation should be set on foot, for the purpose of attending, not merely to the subject commonly known as medical reform, but also to the redress of all practical grievances, which now oppress the medical practitioner. We accordingly laid our views on the matter before the association, and, without making a specific proposition, endeavoured to point out the advantages that would result from the appointment of a committee invested with powers to co-operate, efficiently, with other bodies, for the protection of general professional interests. We were the more anxious for the appointment of a committee, specially charged with such duties; because we were aware, from the experience of the past year, that it was the opinion of Dr. Barlow, the respected chairman of the committee appointed by the Provincial Association to watch over the interests of the profession, that that committee had no power except to report annually, and that the power of acting lay with the council, which, being composed of more than 300 members, was, of course, unsuited to discharge executive functions of any kind. We were ably supported by the other deputies, and have every reason to infer, as the result of private conversations with the members of the association, that the general feeling was in favour of a system of sustained action in support of the interests of the profession, whereby the influence and funds of the association might be made actively useful; rather than of the delivering of an annual oration on medical reform. We regret to say, however, that the secretary, Dr. Hastings, and Dr. Barlow, chairman of the reform committee, thought differently, and distinctly informed us, that they did not wish any proposition for the appointment of a responsible committee to be brought publicly forward. Under these circumstances, the

deputies present conferred together, and unanimously agreed to the following resolutions:—

“York, August 5, 1841.

“At a conference of the delegates of the British Medical, the North of England, and the Irish Medical Associations, to the Provincial Medical Association, at its anniversary meeting, it was agreed, that the delegates should report to their constituents respectively, that after having attended and taken a part in the proceedings at the general meeting of that body on the previous day, and having given their best consideration to the subject, they deemed it inadvisable to make any specific proposition for the purpose of procuring its co-operation through the medium of some official channel appointed for that purpose. Further, the delegates were informed by the secretary that it would not, in his opinion, be advisable that such a proposition should be made at the present meeting. The secretary and the chairman of the reform committee of the association also stated, that a free intercourse had hitherto existed between the reform committee of the Provincial Association and the associations represented by this conference of delegates, which, in their opinion, would be sufficient at the present time.

“As it appeared essential to the best interests of the medical profession to organise a plan of co-operation between the different associations founded for medical reform, it was unanimously agreed, that the fullest and freest intercourse between their councils be recommended for the purpose of promoting measures for the good government and regulation of the medical body.”

A copy of these resolutions, bearing the signatures of Dr. Brown of Sunderland, Dr. Webster of Dulwich, and Mr. Bottomley of Croydon, we now beg leave to lay before the council.

ROBERT C. WILLIAMS.
H. MAUNSELL.

MISREPRESENTATIONS OF THE
“PRESS.”

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—An effusion of spleen so intemperate and unjust as that which the Editor of the Dublin Medical Press has thought proper to append to his report of the late meeting of the Provincial Medical and Surgical Association, might, perhaps, be safely left to that speedy oblivion to which all such virulent aspersions tend. But as calumnies, however groundless, always meet some credence from the mere circumstance of their being in print, especially if they meet no contradiction, I deem it right to correct, as speedily as possible, the misrepresentations into which the Editor of the Medical Press has suffered some unruly passions to betray him.

How the hostile spirit manifested in this effusion of the editor became aroused, I am unable to comprehend. With this, however, I have no concern, my attention being fixed solely on what he has so malignly mis-stated.

In this extravagant and unprovoked attack on the revered secretary of the association, the writer

commences with mis-stating facts, and then proceeds to inferences, which the alleged facts, even if true, would not warrant.

His first mis-statement is the following, viz.—“The dinner, we believe, was but thinly attended, the company being nearly two-thirds less than it was last year at Southampton.” This statement happens to be untrue; and as the editor was not himself present at the dinner, we charge him only with asserting, on insufficient grounds, what he did not know to be true. Relatively to the number of members present at the meeting, the dinner was not thinly attended, the guests bearing as full a proportion to the whole number of assembled members as on any former occasion. The dinner company was not two-thirds less than it was last year at Southampton. I, Sir, who did attend the dinner, counted the guests, and found them to amount to seventy. Will the editor of the Medical Press allege, that the attendants at the Southampton dinner amounted to 210?

But, even if there were a thin attendance at dinner, there were, surely, other causes to which to refer this, without imputing it solely to repulsion, caused by the alleged misconduct of the secretary. The meeting had occupied above two days; many members had attended from extreme distances, and were naturally anxious to return to their homes; they were under the necessity, too, of availing themselves of the most convenient rail-trains for carrying them back to their respective districts. Even the cost of the usual dinner is well known to have effect in thinning the dinner attendance. Taking into account these several causes of absence from the dinner, I hesitate not to pronounce, that relatively to the whole number of members assembled at York, the dinner was not thinly, but fully attended.

Assuming a thin attendance, the writer of the objectionable paragraph immediately proceeds to assign the conduct of the secretary as the cause of this; and, referring to a casual discussion which took place at the meeting, he expressly charges Dr. Hastings with “an intemperate and vulgar attack on Dr. Laycock,” and with “attempts to stifle discussion by brawling and bombast.”

They who heard the discussion alluded to, will find it difficult to recognise it in this splenetic representation; while all the absent members who have any knowledge of Dr. Hastings, will at once repudiate the gross accusation as wholly unworthy of belief.

So far from Dr. Hastings making an intemperate and vulgar attack on Dr. Laycock, he was himself the party assailed; and only in defence of the secretaries, the council, and the constitution of the association, did he reply. Dr. Laycock more than insinuated, that the government of the association was not representative of the general members; that the council was arbitrarily chosen; that the secretaries exercised despotic power. Against these groundless and unexpected imputations, Dr. Hastings did earnestly vindicate the parties arraigned. Were the imputations true, it would have been the bounden duty of the detector of such abuses, either to have impeached the secretaries as guilty of violating the fundamental laws; or, if he found the laws defective, to have given notice of an express motion for correcting them.

But Dr. Laycock's remarks being as untrue in fact, as they were inappropriate to the occasion—

on which they were uttered, Dr. Hastings, precisely as his duty required, rebutted them by a direct refutation, which none but the Editor of the Medical Press would venture to call intemperate and vulgar, or characterise as brawling and bombast.

For Dr. Hastings' reputation, Sir, I have no fears, for it rests on too stable a foundation to be thus damaged. But I would caution the Editor of the Medical Press, as he values his journal, to beware of discrediting it by such unseemly personality as that which has called forth the present strictures.

Your obedient servant,
VERAX.

August 12, 1841.

RESULTS OF FORTY-TWO OPERATIONS FOR THE CURE OF STAMMERING.

By M. BONNET.

THE author gives a short account of the results obtained by him in forty-two operations for the cure of stammering, by the subcutaneous method. In two patients no actual stammering existed, but the pronunciation of words was indistinct; no benefit ensued. In four cases he was also unsuccessful, where the impediment depended on some anomaly during respiration; the patients did repeat the same syllables over and over again, but enunciation was suddenly interrupted at the beginning or in the middle of a word. Of the remaining thirty-six patients, labouring under true stammer, six were above 32 years old. In the latter, the results were completely negative, and M. Bonnet thinks that the operation should never be performed on individuals who have passed the age of 32. Thirty patients were below this last-mentioned age; of these, ten were completely cured; eleven very greatly improved; two moderately so; and seven obtained no benefit. As under the head “greatly improved” are included cases where the impediment of speech was all but removed, it follows that the operation is attended with excellent effects in about two-thirds of the cases; but will these effects continue? This is an important question, which time alone can determine; of the ten patients completely cured, one relapsed to his former condition ten or twelve days after the operation; in another case, the stammer gradually returned about the fifth week; the other cases continue well at the present time (May 18th.) Amongst the eleven patients greatly relieved, two had relapses, but the remainder, on the other hand, were improving every day.

From these results it would appear, that we may expect some benefit from the operation for stammering, provided it be applied to the proper cases; but what these are, the present state of our knowledge does not permit us to say with any certainty.—*Bul. de Therap.* July, 1841.

SUICIDES IN FRANCE.

THE number of suicides in France during the year 1839, amounted to 2,717; of these, 698 females, and 486 males, occurred in Paris. It is a melancholy fact, that self-destruction is daily on

the increase in civilized countries; thus the progressive increase in France has been as follows: 1836, 2,310; 1837, 2,413; 1838, 2,556; 1839, 2,717.

DELIVERY OF A FEMALE, WHO, FOUR YEARS PREVIOUSLY, HAD BEEN SUBJECT TO THE CÆSAREAN OPERATION, BY DR. SCHNACKENBERG.

A rachitic female aged thirty-three, and but three feet eight inches in height, had been delivered by means of the Cæsarean operation in August 1836; she again became pregnant, and was at her full time, Feb. 29, 1840.—The attending physicians found her in the most extreme want, and in a locality so miserable and peculiarly circumstanced as to forbid all idea of performing the Cæsarean operation, and she was carried to hospital, where it was ascertained, that the antero-posterior diameter of the pelvis was from $2\frac{1}{4}$ to $2\frac{3}{4}$ inches. The case was one of foot presentation, and the uterine contractions were so powerful, that the fœtus was soon expelled to the shoulders, which were easily disengaged, but the head could not be brought down. The cord ceased to pulsate; the meconium passed away, and the infant became flaccid. Being satisfied that the child was dead, the head was perforated and extracted; the fœtus weighed eight pounds; the mother recovered perfectly.—*Neue Zeitschrift für Geburtskunde und Med. Press.*

MEDICAL REFORM.

Yesterday, George Duncan, Esq., M.P. for Dundee, was waited upon by a deputation of the Eastern Medical Association of Scotland, to solicit the support of the honourable gentleman in favour of the important cause of medical reform. The deputation were much pleased with the cordiality of their reception, and the handsome manner in which Dr. Duncan promised to support the important measures of which they are the advocates.—*Dundee Warrier.*

A HINT TO MAGNETISERS.

A peripatetic magnetiser, M. Laurent, accompanied by the well-known Mademoiselle Prudence, has recently met a very untoward check at Lille. The young lady, whose eyes were covered by pieces of court plaster and a bandage, astonished the spectators by the facility with which she played at cards and dominos. Some medical gentleman present, on watching Miss Prudence rather closely, discovered that very slight motion sufficed to displace the bandage, and that the lady had anointed her eyelids previously with oil. The secret thus discovered was immediately applied in practice. A gentleman oiled his eyelids, put on the bandage, and was able to play at cards just as successfully as Miss Prudence. On this discovery being made public, M. Laurent and his pupil decamped from Lille, and have not been heard of since.

BOOKS RECEIVED.

Philosophic Nuts, or the Philosophy of Things, &c. By Edward Johnson, Esq. No. 8, Simpkin and Co. London.

The Structure, Economy, and Pathology of the Human Teeth, &c. By William Lintott Churchill, London, 1841, pp. 114.

Dictionnaire des Dictionnaires, &c.; or a Dictionary of Medicine, being a Compendium of the best French and Foreign dictionaries, by a society of French Physicians, under the superintendence of Dr. Fabre. Vol. I. to VI. Paris, 1841.

On the Construction and Management of Hospitals for the Insane, with a particular notice of the institution at Leigbure. By Dr. Maximilian Jacobi. Translated by John Kitching; with introductory observations, &c. By Samuel Tuke, Churchill, London; and Linney, York. 1841. 8vo. pp. 229.

First Principles of Medicine. By Archibald Billing, M.D. Fourth Edition. Highley, London, 1841. 8vo. pp. 312.

TO CORRESPONDENTS.

A Member of the College.—Licentiates resident in the country will enjoy the same privilege.

The papers of *Mr. Sweeting, Mr. Storr, and Dr. Tunstall*, read at York, were published in our last number.

We have to request that all communications, &c. may be addressed to *Dr. Hennis Green, 58, Margaret Street, Cavendish Square.* Letters on business connected with the Association should be addressed to *Dr. Streeten, Foregate Street, Worcester.*

HUNTERIAN SCHOOL OF MEDICINE, (late NORTH LONDON,) 20, Charlotte Street, Bloomsbury.

WINTER SESSION, 1841-2.

The Medical Classes will open on October 1, 1841.

Anatomy and Physiology—Dr. Valentine Flood.
Practical and Surgical Anatomy—Mr. E. J. Chance and Mr. P. Bennett Lucas.

Principles and Practice of Medicine—Dr. R. Boyd and Dr. Klein Grant.

Materia Medica and Pharmacy—Dr. G. A. F. Wilkes.

Chemistry—Dr. Venables.

Midwifery and Diseases of Women—Dr. Hanning.

Diseases of Children—Dr. Hennis Green.

Principles and Practice of Surgery—Mr. P. Bennett Lucas.

SUMMER SESSION.

Botany—Dr. Wilkes.

Medical Jurisprudence—Dr. Venables.

Practical Chemistry—Dr. Venables.

The Certificates from this School are recognised by the London University, the Royal College of Surgeons, the Worshipful Company of Apothecaries, and the Army, Navy, and East India Medical Boards.

Perpetual Fee to all the Lectures required by the above Institution, £35.

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CLINICAL LECTURES

IN COURSE OF DELIVERY DURING THE PRE-
SENT SESSION,

AT

GUY'S HOSPITAL.

By JOHN MORGAN, Esq.

(Published with permission of the Lecturer.)

JULY, 24, 1841.

LECT. VII. *On Morbid Affections of the Lachrymal Conduits.*

GENTLEMEN,—The lachrymal conduits consisting, as you must all be aware, of the puncta lachrymalia, the lachrymal ducts and sac, and the nasal duct, are subject to attacks of acute and chronic inflammation analogous, or I should rather say similar, in their consequences to attacks of the same kind when occurring in other conduits, formed for the purpose of transmitting the secreted fluids of the body, and furnished with a lining of mucous membrane. Thus, as in the case of various excretory ducts in other parts of the body, we find that stricture, the result of the adhesive, and abscess the consequence of the suppurative form of inflammatory action, will be met with as the most common causes of disturbance in the functions, and of alteration in structure of these parts. I think I shall not fail to show you, in describing the diseases of the lachrymal apparatus and pointing out their proper treatment, how very similar those diseases are to the morbid affections of one other excretory duct in particular, I mean the urethra, and how completely we are guided by the same principles in pursuing the same general plan of treatment in both cases. Now, gentlemen, that an interruption to the passage of the tears, from the surface of the conjunctiva to the nose, arising from a constricted or obstructed condition of any part of the lachrymal canal, will be indicated by a flow of those tears over the cheek, you all, of course, know very well; and therefore, should you be consulted by a patient complaining of inconvenience from the eye frequently or constantly watering, perhaps you might conclude at once that some mechanical cause of stoppage in the natural passage must exist, and your treatment would consequently consist in the employment of those means which would be necessary to restore an obstructed duct to its healthy state. It is right, therefore, that I should tell you, before I say anything of the diseases I am about to describe, that one of their first symptoms, viz. the passage of tears over the cheek and a watery state of the eye, may be met with in those whose lachrymal canals are perfectly pervious, and in whom no disease whatever exists in these parts; for in some persons it will occasionally happen that a superabundant flow of the lachrymal secretions will be so disproportioned to the absorbing power

of the puncta, as to prevent those parts from taking up the whole; a part therefore, only, finds its passage through the natural channel to the nose, the rest passing over the lids, and we consequently have what is commonly called the watery eye.

This affection is called by ophthalmic surgeons epiphora, and is distinguished from a watering of the eye occasioned by mechanical obstruction to the natural passage, which is called stillicidium. In one case the ducts are overflowed by a morbid increase of secretion, in the other they are obstructed, and the overflow of tears is from the secretion in its natural quantity. Epiphora is most frequently met with in adults and persons of advanced age, viz. when it occurs as an idiopathic affection, and when occurring and continuing, as it usually does, without any assignable cause, and unaccompanied by inflammatory action in any part connected with the disorder. I am not alluding to that watering of the eye occasioned by inflammatory action or morbid irritability of the retina, but to that idiopathic form of the complaint which would appear to consist exclusively in a redundant lachrymal secretion, and which, I think, you cannot mistake from what I have now told you. Idiopathic epiphora is generally increased by exposing the eye to cold winds, drafts of air, or sudden transitions of temperature; over-exertion of the organ in a strong light, particularly in that of a candle or lamp, will frequently be followed by additional inconvenience. With regard to the treatment, it will be almost altogether local, for it is a purely local disease.

Constitutional treatment will be required only where there is concomitant constitutional disturbance, and this is not necessarily the case, so that you will usually find that topical remedies are sufficient to remove the complaint. The plan which I recommend you to follow, and which I have found by far the most efficacious, consists in the frequent and regular use of mildly astringent anodyne collyria. One of the most useful may be composed of the liquor ammoniæ acetatis and the vinum opii, or, what is still better, Batley's sedative solution of opium, in the proportion of one part of the anodyne to three of the liquor ammoniæ acetatis. The vinum opii is also an excellent local application. Sometimes, when the case is obstinate and of long standing, it may be necessary to use a more powerful astringent, as a solution of alum, cupri sulphatis, zinci sulphatis, or argenti nitratæ, in the proportion of a grain or two to an ounce of aqua rosæ, but let me recommend you always to combine your astringent with an anodyne. Now, one of the consequences of epiphora will sometimes be extremely troublesome,—I mean an excoriation or constant itching of the lids or face from the frequent passage of the tears over the part; this is hardly ever complained of except by old persons, and will sometimes remain after the epiphora has been cured. In these cases, the best local application I know of to allay excessive itching, is a com-

bination of liquor ammoniæ acetatis with mistura camphoræ, and liquor opii sedativus, in the proportion of ʒi. of liquor ammoniæ acetatis to ʒss. of camphor mixture, and ʒi. of liq. opii sedativus. I have found the liquor plumbi subacetatis dilutus with the liquor opii sedativus in the proportion of ʒiii. to ʒi. very useful in some cases, and more particularly where the excoriations were troublesome from their constant smarting, but I generally prefer the other. I have also found the oxide of zinc lotion in the proportion of ʒi. to ʒi. of aqua rosæ of great service, and I have always remarked that lotions are far better than unguents.

Well, so much for epiphora; I shall now go on with the diseases of the lachrymal conduits—and first of the puncta and lachrymal ducts. The puncta may be closed either by inflammatory swelling of adjacent parts, by thickening of the membrane, or by a collection of morbid lachrymal secretion; or, as sometimes happens, by these three causes combined. The most common cause is the last, which, however, if neglected, leads to the second.

The treatment in the first case must be too obvious to require description; in the treatment of a closed punctum from the presence of thickened discharge from the conjunctiva and Meibomian follicles, you will endeavour to produce an altered and healthy secretion from those parts by the use of gently astringent collyria, and whether this is the cause or not, is easily ascertained by introducing a punctum probe. If this passes easily, do not repeat the operation, but trust to astringent collyria for a remedy. The inspissated mucus should be frequently washed from the aperture by tepid ablutions, and will very soon cease to collect; if that aperture should, however, be constricted, the punctum probe must be passed every other day till the part is sufficiently dilated, and it is advisable in these cases to carry the instrument quite into the sac, that you may be certain the whole of the canal is pervious. Sometimes the blunt end of the probe will not enter the orifice without your using undue violence; you may then make use of some sharp-pointed instrument to make way for it. The point of a common pin answers the purpose as well as anything else. Be careful, in passing a punctum probe, to recollect the course of the lachrymal ducts, or you will find this very simple operation almost impracticable; bear in mind that their course at the commencement is at right angles with the edge of the tarsal cartilage, and that in this direction the point of the instrument must first be carried, before it is pushed onwards into the sac horizontally. As a general rule, it will be found that astringent collyria are useful whenever you meet with a constricted punctum, for it is almost always occasioned by a morbid state of the mucous membrane, which requires this application for its removal. I have never met with a case of stillicidium arising from obstruction in the passage of the tears through the lachrymal conduits before they reach the sac, in which it was not found at the orifice of the punctum, or at the entrance of the duct into the sac, (when I have often believed that a collection of mucus was the cause,) for I have never seen a case of stricture of the lachrymal duct in any part of its course, except at its extreme terminations.

Now, gentlemen, obstructions to the passage of tears into the nose before they enter the sac, are in

the very great majority of cases accompanied by disease of that part, and of the nasal duct also. These structures are highly prone to inflammatory action, producing immediately a thickening of the lining mucous membrane, by which the duct is closed, and in severe cases suppurative inflammation, giving rise to the formation of an abscess of the sac.

I shall now endeavour to describe to you the diseases of the lachrymal sac, which are, indeed, comprised in the ordinary effects of inflammation upon a mucous membrane, modified only by the nature of surrounding parts, and the peculiar offices performed by the diseased tissues. Now, when this morbid action commences in the sac, the lining membrane and submucous tissue become thickened, thus causing obstruction to the passage of the tears through the nasal duct, by contracting that part at its commencement, the consequence of which will be a distension of the sac from an accumulation of lachrymal secretion. In some cases the openings of the lachrymal ducts or puncta are also closed from the same cause; whether this is the case or not, is easily ascertained by making pressure on the distended sac; when, if these channels are pervious, the sac is immediately emptied through them upon the surface of the globe. In the commencement of the disease the integuments are not in the slightest degree discoloured, and the contents of the tumor, when pressed out through the puncta, will consist of the tears mixed with a ropy mucus, which, as inflammatory action is increasing, assumes the appearance of a muco-purulent secretion, and eventually pure pus is poured out from the inflamed membrane, occasioning not only abscess in the sac, but suppurative inflammation also in the adjacent cellular tissue and integuments. The skin now becomes discoloured, and not unfrequently an erysipelatous blush extends around the swelling to the lids and side of the face. If the disease be allowed to run its course, ulceration supervenes, the abscess bursts externally, allowing the escape of the tears through the opening on the face, and so long as the nasal duct remains closed, they continue to pass through this aperture, and thus we have a disease produced which we all recognise under the term of *fistula lachrymalis*. When you see this disease in its most acute form, it will be accompanied by considerable local suffering and constitutional disturbance. This we might naturally expect from the morbid sensibility of the affected parts, as well as from their peculiar situation, the sac being contiguous to parts of extreme susceptibility, and the parts surrounding the strictured and inflamed membrane being composed of an unyielding encasement of bone. The pain complained of is, in aggravated cases, excessive, extending over the face, forehead, and side of the head, and the ordinary symptoms of irritative fever, and, in the worst cases, delirium will indicate the sympathetic influence which the complaint is exerting upon the general system. These formidable symptoms, however, are, for the most part, met with only in those cases where acute suppurative inflammation in the part is present, and where the patient is of an irritable temperament; for when the disease is of a chronic character, and occurs in subjects otherwise healthy, you may occasionally find that it will be almost entirely local, the suffering of the

patient being comparatively trifling. In treating a case of inflammation of the sac threatening abscess, your first object will be to lessen action in the part by the application of leeches; the inflamed textures are to be fomented, and a very light bread and water poultice applied; if the constitution has sympathised and febrile disturbance is present, the ordinary rules which regulate your practice in the treatment of pyrexia, from analogous causes, must be your guide in the constitutional treatment. Cupping on the temple or back of the neck will be required, if the pain in the face and side of the head is considerable; but the most important point to attend to, in either threatened or existing abscess in the sac, is the establishment of a clear and continued passage for the confined secretions through the nasal duct: when this is once effected, the cure is nearly accomplished. You are aware, I suppose, that the usual mode of proceeding, in cases where this object is to be attained, consists in passing a probe or style *through the sac* into the duct; there is, however, a decided objection to making a compound case of a simple one, by opening the integuments of the face for the purpose of performing this operation, so long as a chance is left of restoring the parts to their natural state by topical depletion and other remedies; and therefore, should these means be insufficient to remove the cause of obstruction, an abscess in the sac is commonly the result.

This termination of the complaint may, however, in most cases, be prevented by adopting a plan of treatment for the establishment of the natural passage, which, although not practised in this country by ophthalmic surgeons, is one that I have not only strongly recommended, but successfully followed since I first entered the profession. I need not dwell on the extreme importance of keeping a free passage through an inflamed sac; fistula lachrymalis and abscess never forming so long as tension of the sac is prevented by the ready escape of its contents through the ductus ad nasum.

The ordinary mode of effecting this important desideratum is obviously objectionable in the earliest stages of the disease, yet, as a preventive measure, the mechanical removal of all impediment in the duct is as urgently called for, when the sac is simply distended by its contents in the onset, and before the part is acutely inflamed, as it is when an abscess has formed in that part, the bursting or opening of which affords the surgeon an opportunity of passing his probe with ease through its interior into the strictured canal. Now, gentlemen, I treat a case of stricture in the nasal duct upon the same principles, and nearly in the same manner, as I do a case of stricture in the urethra. In both cases, we find a contraction in the calibre of an excretory duct, resulting from the same cause, viz. an interstitial effusion of adhesive matter, the consequence of inflammation; and in both cases, the object we have in view is to dilate the stricture without lacerating, or in any way injuring, adjacent tissues. In cases of stricture in the urethra, we do not wait for an opportunity of passing an instrument through the contracted canal, till an abscess in the perineum brings us into immediate contact with the disease; nor do we cut down upon the membranous portion till other means have failed; and why should we wait for an abscess in the sac, or open that part through

the integuments of the face, with a view of dilating the nasal duct through its interior, when the same mode of treatment as that which we pursue for the cure of stricture in the urethra, is equally available for the cure of stricture in the ductus ad nasum? Through the orifice of this duct, where it enters the nose, a probe can by a practised hand be almost as readily carried through its canal to the stricture, as the bougie is passed through the orifice of the urethra to its membranous portion; and it is by availing ourselves of this mode of applying the mechanical means of remedy, that we shall be enabled to remove at once the greatest difficulty we have to contend with in the treatment of the diseases which I am now describing. The only objection which can be offered to the plan I now recommend to you, must, I should think, be the difficulty of passing the instrument; but this objection ought never to be raised, for experience will prove to any one who will take the trouble of trying the experiment, that a little practice will enable him to acquire sufficient dexterity to perform this operation with ease. This may be done by rehearsing it, whenever opportunity offers, upon the dead subject, upon which, as I have now one before me, I will point out the proper mode of proceeding. The instrument I use, and which I now show you, is a metallic bougie, or sound, rather thicker than a common probe, and somewhat conical at the point, bent, as you see, in the shape of an italic letter *S*, for I find this the most convenient form; the handle is flattened, and the instrument about three inches in length. I first pass the point along the floor of the nose, keeping it downwards at first, afterwards carrying it outwards, till I find I have placed it between the inferior turbinated and superior maxillary bones. I then turn it directly upwards, and in this way introduce it into the termination of the duct, which can generally be distinctly felt, as the point is moved gently backwards and forwards along the membrane. This is the most difficult part of the operation, for when you have once fairly entered the point, it is easily pushed onwards by depressing the handle of the instrument. Great care must, however, be taken not to use force in passing it through the duct, the bony case of which is very easily broken down; if you meet with much resistance, which you will seldom do, unless in chronic cases, you must satisfy yourself at first with merely entering the point into the stricture, from time to time, until the constricted parts have yielded; and while you are thus endeavouring gradually to dilate the stricture, as well, indeed, as during the whole process of cure, even when the instrument has been passed, you will find very great advantage from the injection of tepid water in the acute, and astringents in the chronic stages, through the canal; this is best effected by introducing the instrument I now show you into its nasal termination. You see that it is a small catheter of the same shape as the metallic bougie, through which, by attaching a syringe to one end, an injection can be thrown with sufficient force to wash out thoroughly both the duct and sac; a part of your treatment which is of considerable importance. In adopting this mode of proceeding, it is unnecessary to push the end of the catheter into the sac, for if it is merely introduced into the mouth of the duct, the injected fluid will readily pass into the inflamed cavities. You must, I think, be

at once convinced of the superiority of this plan, when it is practicable, over that which is usually adopted,—I mean the injection of the lachrymal conduits through the puncta. Sometimes, however, when the stricture is firm, and the canal perfectly impervious to the passage of either your instrument or your injections, you must have recourse to this latter mode for accomplishing your object, and, by introducing a punctum tube, inject the sac by means of Anel's syringe. You are always to fill and empty this two or three times by pressure, whenever you use the injection. If you are called to a case of abscess of the sac presenting an external opening, it is better to pass your probe first through the upper opening of the duct; this is of course by far the most easy way of overcoming the obstruction; and having once passed a probe in this direction, its introduction from below is at once insured, and you may venture to use more force in operating through the sac than through the nose. Having taken advantage of an opening thus already made, by establishing the continuity of the canal in this way, it will be your object to prevent a fistulous opening in the face, from the continued discharge of the abscess, by endeavouring to effect the closure of the wound, avoiding the subsequent use of any instrument through the sac, and insuring the permanent dilatation of the stricture, by carrying on your operations from the nose. The nasal probe or bougie should be used about twice a week, and the sac and duct injected daily. In those cases where abscess has formed, and the integuments have become not only deeply discoloured, but obviously so thinned by absorption, as to render the natural evacuation of pus through the surface inevitable, it is better to puncture the abscess at once, and having passed a probe through the duct from the sac, endeavour to close the opening in the face by following the plan of treatment I have mentioned, and which, perhaps, if pursued in the commencement, might have prevented the disease from terminating its course in the manner I have described. Keep the nasal duct freely open, gentlemen, and you need not fear fistula lachrymalis, or abscess of the lachrymal sac.

Having now stated to you the plan of treatment which I pursue in cases of inflammatory affections of the lachrymal conduits and their consequences, I will shortly describe to you the ordinary remedies which are made use of by others. In France, I am informed that the system I recommended is followed by some of the surgeons of that country, but I believe such is not the case here. Now, in addition to that which I have mentioned, there are several methods by which the principal object we have in view may be accomplished—I mean the restoration of the obstructed conduits to their naturally open state; as regards, however, the best means of insuring a permanent cure for a closed punctum, there exists no difference of opinion; it is only in reference to the diseases of the sac and nasal duct. The plan of treatment most frequently recommended, consists in making a puncture into the sac with a double-edged knife below the tendon of the orbicularis muscle; in then passing a common probe through the duct into the nose, and afterwards introducing a small silver probe formed somewhat like a nail, having one end flattened to prevent its slipping through into the nose. This instrument, which is called a style, is afterwards to

be worn, but not until the opening in the sac has sufficiently closed, to prevent the head of the instrument from passing through the skin. In this way the duct is kept open as long as it is worn, but in most cases no longer, for unless the foreign body is almost constantly worn in the duct to keep it pervious, the disease will be liable to return. The inconvenience attending this plan I need hardly point out to you, and you will see that is insuring a passage through the nasal conduit a fistulous opening must necessarily be left in the face for the rest of life, for the occasional or constant accommodation of the metallic dilator. The style should be made of silver, gold, or platinum; it otherwise becomes corroded in wearing. The next plan consists in the introduction of a gold, silver, or platinum tube into the nasal duct, through an incision made into the sac; it is introduced in the same way as the style, the duct being first opened by a probe passed downwards and inwards, till it reaches the stricture, and afterwards nearly perpendicularly downwards, with a very slight inclination backwards; the tube, which is expanded at one end, is then to be carried on the probe completely into the duct, the expanded or upper end resting on the lower surface of the sac, and completely beneath the integuments, which are allowed to close and heal over it. You will see that, by this operation, an artificial channel is made for the tears through which it is supposed they pass, as long as the tube remains; but it is reasonable to suppose that the greater portion, if not all, find their way to the nose by the sides, and it is found that generally very great inconvenience is occasioned by the constant wearing of this foreign body, which is liable to shift its place upwards or downwards, and often to become obstructed by inspissated secretion. Moreover, in some cases, the metallic substance acts as an extraneous body, and occasions not only disease in the soft parts, but in the surrounding bony structures also. This is an attempt at remedy which I should recommend you all to avoid; I believe it is seldom now had recourse to in this country, where experience has condemned its use; abroad, we hear of its being very much extolled by M. Dupuytren and others, but on following up the cases which have been under their treatment it has been stated that complete failures are to be met with in the greater number of cases in their hospital practice, within a year or two after the performance of their supposed successful operations. Another kind of operation is practised by Professor Beer of Vienna; it is performed in the following way: a probe is first passed through the duct to make way for a piece of catgut, the ends of which, after it is passed through the canal, are fixed by strips of adhesive plaster, the one to the ala of the nose, the other to the forehead. The professor makes use of common fiddle-strings, beginning with the smallest, and gradually increasing the size to the largest, removing the catgut daily, and when he has arrived at his maximum, or the string D, he removes it altogether, and considers the cure effected, and endeavours to close the opening in the integuments and sac, through which the string has been passed. I have never seen this plan tried, but I should think it can hardly ever be permanently successful. Mr. Travers recommends the use of injections thrown into the sac and ducts, through the puncta, by means of Anel's punctum tubes, and trusts in a

great measure to the introduction of punctum probes through the stricture, carried to that part through the lachrymal ducts and sac. The principal objection to this plan would appear to be, that, if the probe is large enough to dilate the contracted duct, it would render the puncta through which it must pass, patulous from over-distension. Mr. Travers, however, has found this mode of treatment successful, and it is far preferable, if efficient, to the introduction of either styles, tubes, or fiddle-strings; and now you may ask me, does your own plan always succeed in curing a strictured duct and fistula lachrymalis? I answer, that fistula lachrymalis, if not of such long standing as to present a permanently cicatrised aperture, will yield to my remedy as soon as the passage through the nasal duct is opened; but I can no more be sure of permanently curing an established stricture in the nasal duct, than I can of insuring a perfect cure and immunity from a future return of the complaint, in cases where I relieve a patient from stricture in the urethra; but this advantage I gain from dilating the canal in the way I have mentioned, viz. that by treating any return of the disease in its commencement, I prevent the necessity for disfiguring the face, and putting the patient to the inconvenience consequent on the wearing of a metallic instrument in his nose for an indefinite period; and by passing the bougie two or three times, I can establish the continuity of the canal, so as to keep the sac empty, and prevent those serious consequences which arise from its over-distension and consequent inflammation. In some cases I have not met with a return of the disease; in most others, the occasional introduction of an instrument, sometimes at very distant periods, has been necessary, and may not the same be said of stricture in the urethra?

OBSERVATIONS ON REVACCINATION.

By H. NEWNHAM, Esq., Farnham.

(Read at the York Meeting of the Provincial Medical and Surgical Association.)

It will readily be admitted, that the science of medicine is one of observation; and that we shall arrive at beneficial results, in proportion to the number of observations, and to the degree in which they have been compared with others, taken at distant places, at different times, and under varying circumstances.

It will also readily be conceded, that these observations will be valuable only in proportion to the accuracy, and mental calibre, and freedom from prejudice of the observer. And still farther, it will be granted, that on the subject of vaccination much remains to be learned,—and probably much to be unlearned, which has been hastily assumed, and too broadly stated as a fact, whereas, perhaps, it has been only an opinion,—received from the inaccurate or limited views of those who have preceded us, and which has been handed down to futurity, without investigation, and in the absence of sufficient authority.

Without arrogating to myself any superiority over others, I shall yet venture to impugn the correctness of observation of some who have gone before, and the consequent validity of their conclusions. My remarks this evening will be

confined to the subject of revaccination, on which question serious errors appear to be entertained.

First, as to the results expected from this process:

Secondly, as the nature of the appearances consequent upon revaccination; and,

Thirdly, as to the protective influence exerted over the constitution by a supposed renewal of the prophylactic agency of cow-pox.

I. As to the results generally expected from revaccination. This expectation appears to consist in a renewal of the protecting influence of the first vaccination, which by the supposition has been gradually waning, and would, if unrenewed, leave its subject ungarded from the infection of small-pox.

It will be seen upon reflection, that this result is entirely assumed: for it is assumed in the first place that the protective influence of vaccination diminishes in proportion to the distance of time from this first process; and, secondly, that the party so revaccinated is rendered more capable of resisting the variolous infection than he was before.

It will, perhaps, be said, that these are not assumptions, because it has been observed that the greater number of instances of small-pox, after vaccination occur at a considerable interval from the date of such vaccination; and that the revaccinated, resist exposure to the contagion of small-pox. The former of these arguments is untenable, because the fact, if granted, is sufficiently and better explained by the greater liability to exposure during the busy, active years of life, than during the comparatively secluded periods of childhood and youth. And, with regard to the latter argument, it is gratuitous assumption, because it never can be shown that the revaccinated are not among that greater proportion of individuals who, by vaccination, are rendered fully capable of resisting, now and for ever, the impression of variolous infection. Again, the frequent repetition of vaccination is contrary to the usual laws of the constitution in the case of all other specific diseases: small-pox, measles, scarlatina, hooping-cough, &c., do not occur frequently during life in the same constitution. When these maladies have been once received, the constitution, as a general law, remains insusceptible of a second attack; and where cases do occur, they only form that exception which, according to logicians, confirms, not invalidates, the general rule to which they form the exception. It is perfectly true that secondary cases do occur; and, particularly in reference to small-pox, it is well known that a local agency may be produced by the poison without any constitutional influence. In this respect it greatly resembles vaccination, as we should have been prepared to expect by *a priori* reasoning, which seems to point out the great similarity, if not identity of origin, of the two diseases. Reasoning upon the subject, therefore, would induce a doubt as to the supposed efficacy of revaccination; and I shall hope to show, in the sequel, the impossibility of renewing its constitutional influence, except in that small number of cases which form the exception to the general rule, and not the rule itself.

II. This brings me to the second branch of my subject, viz. the nature of the appearances conse-

quent upon revaccination. These have been referred to two classes; first, to those who have resisted the process altogether, and who have been therefore supposed capable of resisting the variolous infection: and, secondly, to those who have passed through the vaccine disease a second time.

Here again there are two sources of fallacy. It is assumed that the former have resisted vaccination, and are, consequently, capable of resisting variola; whereas the simple fact is, that the arm has not taken, and a second or a third application of vaccine lymph will often prove successful, and demonstrate my assertion, that this alleged fact proves nothing more than that the operation has not been successful; and that no just inference can be drawn as to the security of the patient. With the other and larger proportion of individuals subjected to revaccination, it is said that they have had the vaccine disease a second time. But I venture to assert that even this is assumed; and that a second regular appearance of vaccinia occurs only as a very rare phenomenon,—the exception to the general rule, or the consequence of imperfect early vaccination. For the general progress of the revaccinated arm is always anomalous—always differing from the regular history of the vaccine vesicle,—varying in intensity, according to the age, constitution, and habits of the patient—according to the method of vaccinating, and the age of the lymph employed—but still invariably anomalous; the result of the local agency of the poison, in a constitution which has been rendered insusceptible of its normal or medicating influence by the first, regular, and complete vaccination. I must here appeal to the accuracy of the observer, and I will fearlessly ask, if ever he has seen a revaccinated arm assume appearances with which he would have been satisfied as the phenomena of a first genuine vaccination? But if not, the reasoner is reduced to the choice of one horn of the following dilemma—either that we are in error as to what constitutes a regular vaccine arm, or that the boasted sufficiency of re-vaccination is untenable.

It has not fallen to my lot to be able to practise revaccination upon a very large scale, but I have attended closely to the results of several hundred cases; and if there be any truth in the maxim, *ex uno disce omnes*, there will surely be more truth in the enlarged premises derived from the amended maxim, *ex plurimis disce omnes*; and there will be presented some claim to attention, from the unvarying results of a comparatively small, but still not insignificant number of experiments.

In consequence of the occurrence of variola in the neighbourhood of Elvetham-park, I have lately revaccinated eight children and twenty-eight grown persons of different ages; in—1st, five children and fifteen domestics; 2nd, three children and seven domestics; 3rd, one young lady and five servants; making together thirty-six individuals of all ages. In all these cases, the results most carefully noted every second day have confirmed my preceding experience; one only out of the thirty-six has presented anything approaching to a regular arm—a nursery girl, aged 19; she was vaccinated when a child, and seems to present a well-formed cicatrix. Even in this one, had it been a case of first vaccination, I should have called it an unsatisfactory arm, and should have

told her of the necessity for a subsequent vaccination at a somewhat distant period. In the remaining thirty-five, the following anomalous appearances have been more or less observed, and it should be remarked that these results of my antecedent experience were publicly stated two years since, in the *Retrospect of the Progress of Surgical Literature*, read at the Anniversary Meeting of the Southern Branch of our Association, then held at Portsmouth, and from the printed report of which I now quote:—

“In the instances which have come under his notice, the local action has been observed much earlier than it ought to be, and in some cases has subsided without further mischief; in others, a vesicle has been soon formed, with an undefined, ragged border, surrounded from the first by an inflammatory blush, always wanting the defined circular edge of the genuine vaccine vesicle, and attended by intolerable itching; much, too much local action has been produced; there has been almost always swelling of the axillary glands, which is unusual in a first vaccination, unless the lymph has been too aged; there has arisen a much higher and a much earlier state of constitutional irritation, originating and ceasing at very uncertain periods, governed by the local cause, and often leaving a sore arm with protracted swelling, and a flattened, undefined, misshapen, too light coloured crust, instead of the regular, raised, and well-defined chocolate-coloured scab.”—p. 9.

This brings me to the third subject proposed, viz. the protective influence exerted over the constitution by a supposed renewal of the prophylactic agency of cow-pock. It is here that error may be of so much consequence; it is here, therefore, that our conclusions become all-important. If it be asserted that the protective influence of vaccination becomes enfeebled as time recedes from that process, and that the security it affords is exhausted in seven years, while, again, it is renewed by a septennial recurrence to vaccination; and yet, if these assertions be incorrect, it is evident that we produce unnecessary apprehension in the minds of our confiding patients on the one hand, or an ill-founded security on the other. And since it has been shown that this gradual wearing out of the protective influence of a first vaccination is at variance with all the other analogies of nature; and that it is not supported by the experience of facts, which may not be better accounted for upon another and an obvious principle; and since we have no sufficient ground for believing that revaccination does produce a renewal of the anti-variolous resistance; but that, on the contrary, experience teaches us the impossibility of reproducing a genuine vaccine arm, but in the very small number of cases which form the exception to the general rule: it follows,

That the only position of re-vaccination is as a test of the constitutional efficacy of the first process; and that this test does not consist in there being no result from re-vaccination, which proves only that the arm has not taken, but in the more or less local anomalous appearances produced, without the usual constitutional influence.

There is no contradiction between this remark and the former assertion, that the constitutional symptoms were often most severe in the re-vaccinated: both assertions are true: in the latter class of persons, (i. e. the revaccinated,) there is want-

ing the usual state of vaccine fever on the tenth day—the proof of constitutional influence: and there is present, at an earlier but uncertain time, fever of a morbid character—the fever of constitutional irritation, developed by the local agency of the animal poison introduced into the arm. Again, it follows from the preceding, that our patients' minds should neither be disturbed by fears, nor lulled into overweening confidence by assertions of their enjoying a perfect immunity from the attack of small-pox.

Neither vaccination nor revaccination can afford this: its true position is, that it affords a perfect security against small-pox in the majority of cases; and that, in the other, it so mitigates the severity of the attack as immensely to diminish the rate of mortality, and to render it generally a very safe disease.

Gentlemen, I will bring my observations to a close, by asking your attention to the supposed, and perhaps, to most persons, satisfactory proven identity between small-pox and cow-pox. The facts adduced by Mr. Ceely in support of this conclusion appear so strong as to be irresistible, and yet we know that they have failed of producing conviction on the mind of a great authority in these matters. We may, perhaps, find an apology for this discrepancy, by the different route each has pursued in arriving at their respective conclusions: the one has made experiments on the cow, the other has reasoned upon the phenomena of the two disorders, as constantly presented to his notice.

It has been said, that this is adducing only opinions against facts; but this is inaccurate,—it is adducing one series of facts against another series of facts; and the question in dispute is not the facts, or the veracity of the observers, but how far one series of facts may be relevant to the other series of facts.

Admitting, therefore, the force of Mr. Ceely's facts, I am anxious to claim your attention to a series of counter-facts, not for the purpose of throwing discredit upon the former, but only in the hope of securing yet more attention to the subject, in the expectation of arriving at the whole truth—the only point on which the scientific mind can rest in peace.

This series of facts consists in the different periods of incubation required for the two maladies; in the marked difference of the origin, progress, maturity, decline, and termination of the respective vesicles; in the total difference of the cicatrix; in the constitutional influence produced by the mildest case of small-pox, and the severest case of cow-pox; in the different degree of after-susceptibility to the contagion of small-pox; and in the apparent impossibility of communicating vaccination to one who has previously undergone variola. With regard to the other fact, I speak hesitatingly—I have not been able to effect it; but my number of experiments has not been sufficiently large to enable me to speak positively.

With these facts before us, we should not think harshly of those who doubt, and are anxious to withhold their full assent to Mr. Ceely's hypothesis, till a new series of facts shall show the relevancy, or explain the seeming contradiction of those which I have had the honour of bringing before you.

And now, abandoning conjecture, let me take

leave of you this evening, by the practical suggestion of always employing eighth-day lymph: my opinion is, that the great cause of failure in the protecting influence of vaccination is the want of attention to this circumstance, and allowing to pass as satisfactory the imperfect and spurious arms which are the consequence.

July 29, 1841.

CASE OF STRANGULATED INGUINAL HERNIA.

REDUCED BY SUBCUTANEOUS DIVISION OF THE STRICTURE.

By Dr. JULES GUERRIN.

(Read before the Academy of Science, August 2, 1841.)

BERTRAND FERRE', eighteen years of age, apprentice to an apothecary, is affected with right inguinal hernia, which appears to be congenital, although the patient says that he first noticed it about a year ago. When five or six years old he had hydrocele, and the tunica vaginalis, as well as the tunics of the cord, remained swollen ever since. In the month of August, 1840, while carrying a heavy burthen, a small tumor formed suddenly in the right groin; it came down whenever any efforts were made, and returned when the patient assumed the horizontal position. A medical man, who saw the patient at the time, assured himself by examination of the existence of hernia, and advised a truss to be worn. This advice was neglected by the patient, who came to Paris in 1841, and engaged himself to an apothecary at Passy. The tumor became gradually larger, and on the ninth of July last, while the patient was making some effort, it suddenly became as large as a hen's egg, and ceased to be reducible. On the tenth, after walking about a good deal, the patient felt a good deal of pain in the part, and consulted Dr. Barraud of Passy, who decided that the hernia was strangulated. Several efforts were now made to reduce it without success, and I was called in on the 12th; the following symptoms were then noted: hard tumor, as large as the fist, descending from the right groin to the testicle; it was evidently enclosed in the tunics of the cord, and could be traced some way into the inguinal canal; the tumor was painful, and the hard, peculiar feel led me to think that it was composed chiefly, if not entirely, of epiploon; the skin covering it was red, and very sensitive; there was, however, no nausea, vomiting, hiccup, or general symptom.

The patient had not evacuated for three days; a clyster was thrown up, which produced several stools, without reducing the size of the tumor in the least. The patient was then kept for three hours in a warm-bath, and the taxis applied, but without avail; I therefore decided, after having consumed eight hours in useless efforts at reduction, to perform the subcutaneous division of the stricture; this was done on the evening of the 12th.

Having prepared everything in the usual way, I pinched up a transverse fold of the skin from the root of the scrotum, and drew it up over the external ring; I then made a puncture, with a narrow bistoury, on a level with the ring, and passed a director through the puncture into the inguinal

canal, along the upper and anterior surface of the neck of the hernia; after some time I succeeded in passing it into the canal about two inches and a half. I next made another small puncture just above the former one, and through this I introduced a convex, blunt-pointed myotome, with a very small blade; the latter was directed upwards and outwards, along the groove of the director, and with it I divided gradually the anterior wall of the canal, making pressure with the index and forefinger over the parts that I wished to divide. In this manner I penetrated as far as the internal ring, and then attempted to reduce the hernia, but found that some portion of the external ring remained undivided. I now introduced a smaller myotome, concave and probe-pointed, and easily passed it between the ring and the neck of the hernia; on pressing up the tumor, it now passed readily through the external ring, but the reduction was only apparent, as the contents of the hernia were lodged in the subcutaneous wound, and did not pass beyond the external ring; I therefore reintroduced the myotome and divided the internal ring in two places, from below upwards and transversely from within outwards; the hernial tumor was now reduced with the utmost facility in a few minutes. The openings were closed with small pieces of plaster and firm pressure made over the canal, with compresses and a bandage.

Although the patient had been much fatigued by the efforts at reduction, which had been continued for so long a time, he fell asleep an hour after the operation; no untoward symptom of any kind manifested itself, and on the eighth day the patient was allowed to walk about.

Remarks.—It may appear premature to decide how far the subcutaneous method may be applied to the treatment of strangulated hernia, yet if we may be allowed to reason *a priori*, and from the experience of a single case, the following principles appear to merit the attention of surgeons. In the first place we may affirm, that the subcutaneous operation is applicable to cases of strangulated hernia, where we have reason to believe that the stricture does not exist at the neck of the sac, and that the intestine is free from gangrene. The objections urged against this method of operating, are its difficulty and uncertainty, and the danger of wounding important parts, as the intestine, arteries, or spermatic cord. The difficulty and uncertainty of the operation, however, cannot be fairly urged as insurmountable objections; they apply equally to any subcutaneous operation, and have been urged especially against the subcutaneous division of the recti muscles for the cure of strabismus; but the objection exists rather in theory than in practice. M. Guerin has operated with perfect success in more than seventy-five cases of strabismus, by dividing the muscles underneath the conjunctiva, and is therefore entitled to affirm that the difficulty and uncertainty of the operation exist only in idea. But it may be said, the danger of the operation must increase according to circumstances; thus, although there may be little risk when the sac contains epiploon only, it is quite different when a portion of intestine is strangulated. This is certainly true, but can it be adduced against any operation, the object of which is to save the patient's life? Besides, by following M. Guerin's instructions, the operation is as safe, when performed by subcutaneous incision, as it is

by the common method. The great difficulty is to find the external opening of the canal through which the hernia has descended, for when this is done, it is very easy, by drawing the neck of the sac a little, to pass a director between the sac and canal. These remarks, be it remembered, apply to cases where it is not necessary to open the hernia sac.

The intestine is not in greater danger of being wounded by this method, than by the common one; the blunt-pointed bistoury being guided by the director, can only injure the same parts that are exposed in the common operation, viz. a portion of intestine which may get entangled in front of the blade, and the neighbouring arteries. We can avoid the intestine by drawing down the neck of the hernia, and thus extending it on the director, and as for the arteries, they are just as much exposed to injury by one method as by the other.

We may now ask, how can the operator decide that the seat of stricture is in the hernial canal or at the ring, and not at the neck of the sac? How can we be certain that the intestine is not in a state of gangrene? The following general rules may serve as a guide upon these points:—

1. In cases of strangulated hernia, where the latter has not been reducible, the stricture does not occur at the neck of the sac.

2. When small hernia, which have been previously reducible, become strangulated, the stricture usually occurs at some other point than the neck of the sac, unless the latter has been lacerated.

3. In cases of large strangulated hernia, where the contents have been reducible, or where the hernia is an old one contained in the tunica vaginalis, the stricture usually occupies the neck of the sac.

4. In old irreducible hernia, strangulation generally occurs at the neck of the sac.

But though we may admit that several exceptions to these rules may occur, and that strangulation may exist at the neck of the sac in certain cases where it was not foreseen, the greatest inconvenience that can arise, is the having employed an innocent operation uselessly; the same objection will hold good against the taxis, and all preliminary attempts at reduction. As for gangrene of the intestine, we may remark that when the surgeon employs the taxis, &c., he does so at the risk of reducing a gangrened intestine, and in this respect the subcutaneous operation is not more dangerous.—*Gaz. Med. No. 33.*

ON THE USE OF OPIUM IN STRANGULATED HERNIA.

By A. W. DAVIS, M.D., Presteigne.

(Read before the York Meeting of the Provincial Medical and Surgical Association.)

THE internal use of opium to aid in the reduction of strangulated hernia, not being, I believe, part of the general practice usually resorted to, I beg leave to mention an instance in which its employment was successful, and which came under my own observation.

I was at the house of an eminent surgeon in this neighbourhood, when his assistant arrived

with intelligence, that all the means used for the reduction of a case of strangulated hernia had failed, and that the operation must not be longer postponed. The assistant, a member of the College of Surgeons, had been with the patient during the preceding night, and had neglected none of the ordinary means constituting the taxis. Finding that opium had not been given, I suggested the employment of a large dose, and a teaspoonful of laudanum was immediately given. This producing no effect, after waiting two hours, another teaspoonful was given. This was almost immediately followed by prostration of the muscular system, a dilatation of the pupil in a remarkable degree, and the easy reduction of the hernia. The patient was a strong muscular man, a farmer's servant.

I deem this the more worthy the notice of members of our association, because I derived the hint from my excellent friend Dr. John Conolly, in conversation, when I had the pleasure of seeing him at the Anniversary Meeting at Oxford. The benevolent mind of Dr. Conolly will be gratified to learn, that an incidental remark of his saved at least one individual from a painful and dangerous operation.

ON THE NECESSITY OF ESTABLISHING PAUPER LUNATIC ASYLUMS.

By THOMAS POYSER, Esq., Wicksworth.

I BEG leave respectfully to direct the attention of the Provincial Medical and Surgical Association to a subject, which, indeed, has great claims on the consideration and sympathy of the public at large—I mean the present condition of the pauper lunatics of this country. Although a great change has taken place in the management of the sane poor, and workhouses on an extensive scale have been erected, yet I am not aware that any measures have been resorted to, or contemplated, for the amelioration of the insane, or any asylums proposed for their reception.

The fearful extent to which insanity prevails among the poor, is a subject of great and melancholy interest to all. From recent parliamentary returns, it appears that there are in England and Wales upwards of thirteen thousand pauper lunatics and idiots, and that the number is progressively increasing. Among the causes which tend to increase insanity, may be reckoned extreme distress and poverty; the use of ardent spirits; and exposure to cold. But the most efficient cause is unquestionably hereditary predisposition.

This is seldom adverted to by the poor; hence they contract improvident marriages, and insanity, scrofula, and other hereditary ailments are propagated to a fearful and constantly increasing extent. The operation of the new poor-law may also, it is to be feared, in some cases prove an exciting cause; the bastardy clause for instance, however politic it may be in other respects, has a tendency to destroy maternal feelings; and the state of desertion and destitution, to which the unfortunate female is reduced by it, not unfrequently occasions insanity, suicide, or destruction of the offspring. The indiscriminate removal of the poor to workhouses; the consequent separation of families; and the little distinction that is

made from poverty occasioned by illness and misfortune, and that which is the result of idleness and guilt, has a tendency, in many instances, to subdue the strongest heart, and to produce despair, melancholy, and insanity. Poverty is too commonly treated as a crime rather than as a calamity; and, indeed, the unfortunate pauper has frequently to endure hardships and privations, which are unknown even to criminals. Poverty, wretchedness, and even bodily illness, are, however, compared with insanity, trifling calamities. For however painful and loathsome disease may be, if the mind retain its seat, the sympathy of friends may cheer the bed of sickness, and frequently the illness becomes a blessing to the individual. Indeed, I know of no instance on record, of suicide from mere bodily suffering; but alas! it is far otherwise with mental distress; not a daily paper can be taken up without appalling accounts of self-destruction, from what is generally considered temporary insanity. The moment a poor man is bereft of reason, he becomes, as it were, an outcast from society; a terror to himself, and to his relatives and friends. To him the pathetic language of Job is literally applicable, "My breath is strange to my wife, yea, young children despised me: all my inward friends abhorred me; and they whom I loved are turned against me." Deprived of those curative measures which the rich can command, and which in the great majority of instances are attended with success, the temporary lunacy of the pauper, from ignorance or neglect, usually becomes permanent; and he has to end his days in the parish workhouse—

"The moping idiot or madman gay."

When a pauper becomes deranged, he is generally allowed to wander about until he commit some act of violence; and there is scarcely a village in the country without a lunatic or idiot going at large, himself exposed to injury, and a terror or an object of derision to the neighbourhood. If restraint become necessary, he is commonly sent to the workhouse, and unless he be unmanageable, is kept there, often in direct contravention to the act of parliament. In the workhouse there are no means of using, with success, moral or medical treatment, and consequently the medical attendant seldom resorts to any; the lunatics, therefore, go about among the aged, the sick, and the infirm, unless their violence require them to be manacled with cords, or the strait waistcoat. If, however, they become dangerous or quite unmanageable, they are removed to the cheapest private asylum, and although the accommodation in these institutions for paupers is of the very lowest order, yet the expense (from ten to twelve shillings a week) is sufficient to deter parishes from sending them, except as a last extremity.

In the private asylum for the poor, as little attention is usually given to curative measures as in the workhouse. Eight or ten lunatics are commonly confined in a small room, frequently under personal restraint, with no light or ventilation, except from a skylight; without classification; without any regard to the causes or peculiar character of the cases, and without any interest for their recovery. The great panacea in the treatment of lunacy, viz. unvarying and never-ceasing kindness and attention, is withheld from these wretched inmates; and their constant exposure, in their lucid inter-

vals, to scenes of madness in its most hideous form, too commonly fixes irretrievably the destiny of their reason. Hence, we cannot be surprised, at what is really the fact, that instances of recovery of pauper lunatics from these institutions are exceedingly rare, and bear no proportion to those from public county asylums, where the treatment is conducted with kindness, science, and an interest in the recovery and well-being of the patients. Even as regards the cases which are unfortunately irremediable, we cannot refer to the published reports of the Hanwell, Lincoln, and other well-conducted public institutions, (where personal restraint is now almost wholly abolished, and where the patients, by humane and judicious management, are rendered comparatively comfortable and happy,) without a feeling of horror and distress at the cruelties and injustice inflicted in the minor and more clandestine Bethlems.

It is far from my wish to depreciate private institutions, when under judicious and merciful superintendence; but, although there are no doubt many honourable exceptions, yet I would appeal to all who have witnessed and attended to the subject, whether, as regards the pauper inmates, the truth is not generally as I have stated. Indeed, these are no new opinions; the same views have at all times been maintained by philanthropists. Dr. Reid, in his beautiful essays on this subject, says, "A heavy responsibility presses upon those who preside or officiate in the asylums of lunacy. Little is it known how much injustice is committed, and how much useless and wantonly-inflicted misery is endured, in those infirmaries for disordered, or rather cemeteries for diseased, intellect."

The hardships endured by lunatics are indeed not confined to asylums. From the disgrace and shame which unfortunately attach to insanity, many whose minds are only temporarily disordered, are condemned to a state of insulation from all rational and sympathizing intercourse, before the necessity has arisen for so severe a lot. An instance occurred in this immediate neighbourhood, where a man of respectable family, harmless and inoffensive in his habits, but whose reason was obscured, was confined upwards of fifteen years in a small and noisome room, chained by his leg to the bed, excluded from all social intercourse, and almost from the light of day, and was only released by the hand of death, the confinement of the legs having occasioned mortification. Such instances are probably not very rare.

That the statements I have made respecting pauper lunatics are not exaggerated, will, I believe, be proved by the observation of all who have attended to the subject; and when we reflect on the numerous charitable institutions of this country, and the desire manifested to ameliorate the condition and to remedy the diseases of the sane poor, it seems unaccountable that so little should be done for the insane.

To obviate the hardships and the difficulties attendant on the treatment of pauper lunatics, the only real remedy is the establishment of public county asylums. Sir W. Ellis, the late humane and talented medical superintendent of the Middlesex County Asylum, is high and competent authority on this subject. In his valuable publication, he states, that "For the poor no place can be found which will bear any comparison with a

county lunatic asylum; their wants are there provided for in the most substantial manner, and at an expense which is but little felt by each individual who contributes to it; and as no one in such establishments has the least advantage by the patients remaining in them, they are sure to be discharged as soon as they are sufficiently recovered to justify such a step. Wherever there are one hundred lunatic paupers in one county, there ought to be an asylum."

In this county the parliamentary returns show that there are upwards of two hundred pauper lunatics and idiots, but the actual number is probably greater, and there is no public asylum. Indeed, until the last few years, when a small private establishment was opened in Derby, there was no place for the reception of lunatics. Unquestionably the same deficiency is felt in other parts of the kingdom. The object of the present communication is to suggest the propriety of establishing or erecting public asylums for the poor, in districts where they are needed, on the same principle and in the same manner as the union workhouses have been built. If several unions were to join so as to form an union of unions, an establishment capable of accommodating one hundred or more lunatics might be erected, and the expense, if defrayed by rate, would be but little felt by the contributors. To secure all the advantages of an asylum, the expense of admission should be moderate; it should be open to the inspection of visiting magistrates at all and uncertain times; the medical officers should have the means of classifying the cases according to their respective peculiarities, and derive no advantage from the patients remaining on the establishment. Such an institution would not only be of incalculable advantage to the patients, but if occasionally open to the inspection of medical men, and the results of treatment made known, it would be the means of dissipating much of the prejudice and ignorance which now envelope mental disorders. For no subject hitherto has excited so little, or deserved so much, the attention of medical and scientific men as that of mental derangement. The importance cannot be too deeply impressed of counteracting a tendency to this disease. When it is fully formed and established by habit, our efforts will seldom prove of much avail. In no complaint, therefore, is a knowledge of the premonitory symptoms more important than in insanity. The acute remark of Montaigne, however applicable it may be to the early discrimination of disease in general, is particularly so to that of mental derangement: "*De toutes choses les naissances sont foible et tendres. Pourtant faut-il avoir les yeux ouverts aux commencements, car comme alors en sa petitesse on découvre pas le danger, quand il est accru, on n'en découvre plus de remède.*"

August 22, 1841.

CONTRIBUTIONS TO THE PATHOLOGY OF CHILDREN.

By P. HENNIS GREEN, M.B.

LECTURER ON DISEASES OF CHILDREN AT THE HUSTEMAN SCHOOL OF MEDICINE.

ACUTE HYDROCEPHALUS, WITH SLIGHT LESION OF THE BRAIN.

· ARISTIDE POTIER, 14 years of age, admitted

on the 7th of September, 1835. The father and mother of this child are healthy, but their children are weak and generally ill. For the last four years the child has been addicted to the vice of Onanism, which soon produced a gradual decay of the health, but no very remarkable symptoms.

On the 3rd of September, without any known cause, he was seized with headache, and a sensation of weight about the head, which compelled him to desist from his work; he slept quietly that night, and was drowsy on the following day, complaining of his head; he vomited once in the evening, and again during the night; the sleep was disturbed by cries, and the headache more severe.

On the 5th he vomited several times a quantity of bilious matter, after a severe access of headache; he slept during the day, but towards evening the headache and vomiting returned; during the night he complained constantly of his head.

On the 6th he got up and took a basin of soup with appetite, but was soon compelled to lie down again; at night he complained of headache and pain in the abdomen; he had passed no stool since the 3rd. Since the commencement of his present attack, if we can believe the persons about, the skin was warm, and he was feverish.

On the 7th he was brought to the *bureau central*, and thence to the children's hospital, about 5 P.M. He seemed very dull, but slept quietly all night.

8. The patient appears to be very feeble; he answers slowly when spoken to, and is soon tired of speaking; complains of pain in the head and in the right side of the abdomen, which is painful on pressure, and tumid; tongue covered with a yellow fur; skin a little warm; pulse regular, 60; no sudamina or lenticular spots; no epistaxis from the commencement; no vomiting or nausea. Chest sounds well; no râle.

Cataplasms to the abdomen. Lavement. The child lay quietly during the day, but passed a very agitated night, constantly crying out and complaining of his head and belly.

9. To day M. Guersent accompanied M. Carus round the wards of the hospital; when he came to the patient's bed he merely pressed the abdomen, and thinking that it was tender, pronounced the disease to be typhus fever, and ordered ten leeches to be applied to the abdomen. The disease, however, was a far different one, as the following report will show.

The patient's face is pale; the eyes of a natural expression; no strabismus; orbicular muscles not contractile; the patient lies on the right side, with the legs drawn up, and is completely insensible; it is impossible to elicit an answer from him; neither sees nor hears; mouth spasmodically closed; breath conveys a fœtid, mercurial odour; skin warm; pulse regular, 64; respiration also regular, 24; the sensibility of the lower extremities is conserved, but the arms are very insensible; he does not feel the sharpest pinch; no contracture or paralysis of the limbs. In about half an hour the patient began to moan, and was soon seized with convulsions, which lasted for three or four minutes; the convulsive movements were chiefly seated in the arms; the left arm was completely turned round and demi-flexed; the right was tossed about the head and shoulders, and the respiration became stertorous

for a short time. The pupils were now largely dilated; the lids open; he lay quiet for some time, and was again seized with a fit of uneasiness, tossing about in the bed, twisting the hands, and endeavouring to uncover himself; muscles of the face were not convulsed. In the evening the patient lay in the same state of insensibility, moaning occasionally and fetching deep sighs; pulse from 60 to 64.

The prescription of M. Guersent was, ten leeches to the abdomen, to be followed by cataplasms; lavement. The nurse, however, thought fit to disobey, and put six leeches to the temples instead.

10. The child has lain ever since in the same state of insensibility; can neither speak, see, nor hear; pupils contracted and immovable; no strabismus; the face flushes up at times; the forehead slightly warm, rest of body cool; pulse 64, intermittent; respiration regular, 24; lips dry and cracked; tongue very dry and rough, but clean; abdomen not tumid, and free from pain; passed two stools after the injection yesterday; right arm extremely stiff; sensibility of both arms much diminished; legs not stiff; he can swallow a little to-day, but with great difficulty; no sudamina or lenticular spots anywhere.

Purgative injection. Blisters to the legs; sinapisms to the thighs; twelve leeches to the head or abdomen, according to circumstances.

The patient lay quietly during the day, eight leeches having been applied behind the ears. In the evening he was comatose; the pupils were variable; pulse full and hard, 78; respiration deep, slightly stertorous, 26; the right arm still contracted; the mouth affected with lateral movements, and grinding of the teeth.

11. Complete insensibility; no movement of the muscles; pupils rather contracted; lips dry, and covered with a dirty crust; tongue also dry and foul; passed one stool after the injection; breath extremely fœtid; abdomen retracted and free from pain, with some gurgling in the right iliac region, a symptom which has existed since the commencement of the disease; skin quite cool; pulse irregular, varying from 84 to 96; respiration from 24 to 26; no stiffness of body; left arm now relaxed and nearly insensible; right arm strongly contracted and sensible; lower extremities relaxed and insensible.

One of the blisters to be kept open. Purgative injection. Twelve leeches to the abdomen. (Ordered by M. Blache.)

12. Face now very warm and bathed in sweat; eyelids relaxed; pupils moderately dilated; respiration very deep and difficult, 48 to 50; pulse 148; skin burning hot; all the extremities relaxed: deglutition very much impeded. At 3 o'clock P.M. death.

Body examined twenty hours after death.

Head.—Dura mater healthy; about four drachms of clear serum in the cerebro-spinal cavity; the cerebral arachnoid is slightly opaque; the glands of Pacchioni are extremely numerous, and here the membranes underneath them are thickened, and of a yellow colour, but there are no granulations; on the back of the right hemisphere there was a small quantity of blood effused between the pia mater and cortical substance; the rest of the pia mater on the surface and at the base healthy; there was a very small quantity of clear

serum in the ventricles, and the fornix, lower part of the corpus collosum, and the walls of the ventricles, seemed to be a little softer than natural; the softening, however, was even doubtful, and did not extend to a depth of more than one line; the rest of the brain was quite healthy; no trace of granulations or tubercle in any part of the nervous substance; at the posterior part of the right hemisphere there was discovered a portion of the medullary substance, about two lines cube, which seemed to be hardened, but without any other change. The pons Varolii, cerebellum, and spinal marrow were perfectly healthy.

Chest.—Old adhesions between the right lung and chest; some adhesions also on the left side; no marks of hepatization, but considerable congestion with infiltration of bloody serum in the posterior part of both lungs; no tubercles in the pulmonary tissue, but bronchial glands tubercular. Heart large and soft; valves healthy. Pericardium also healthy.

Abdomen.—No effusion in the cavity, nor adhesions between the intestines; liver, spleen, kidneys and bladder healthy. In the stomach, the mucous membrane lining the greater curvature presented two alterations, viz. 1, a remarkable paleness, with thinning and softening at the anterior part; and 2, deep red injection, without any softening in the posterior part. Jejunum filled with stertoral matter; ileum presents several points of injection; some of Peyer's glands injected and prominent, but no ulceration anywhere. No tubercles in the mesenteric glands.

SUDDEN OCCURRENCE OF COMA, IN A CASE OF TUBERCULAR MENINGITIS.

LOUISE MOISSONET, 11 years of age, admitted on the 2d of July, 1836. The parents of this child were healthy, and she enjoyed excellent health herself until the last two months. Her present illness commenced with headache, accompanied by irregular accesses of fever, with alternate diarrhoea and constipation and pain in the abdomen. On the 29th of June the headache became more severe, and the vomiting returned; The child was compelled to keep her bed; and on the 1st, while attempting to drink, she dropped the cup; since then the right arm has been weak; and on the 2d she suddenly fell into a state of coma.

3. Lies tranquilly on the back, in a comatose state; skin cool; pulse regular, 80; respiration, 36, broken by occasional sighs; sight lost; pupils contracted; motion and sensation are lost on the right side of the body; no deviation of the mouth, stiffness of the neck, or contracture of the limbs; deglutition very much impeded; abdomen retracted, and free from pain; no stool.

Purgative clyster. Two blisters to the legs, and sinapisms to the thighs. (M. Guersent suspected an abdominal affection.)

4. Lies in a state of profound coma; face moderately coloured and warm; tongue dry and clean; abdomen retracted; no evacuation after the clyster; sight and hearing lost; pupils slightly dilated; some strabismus; the cornea is covered by a white film; mouth a little drawn to the left side; tongue dry and clean, abdomen retracted, and seems to be very painful to the touch; the

lavement has not produced any evacuation: pulse 92 to 96; respiration, deep and regular, 39; upper extremities paralysed: the fingers are bent on the palms of the hands, but are not rigid; the left wrist is slightly curved, and inclined outwards; the sensibility of the arms is obtuse; it is better marked in the lower extremities; the head is stiff; no convulsive movements of any part of the body.

Decoction of paspalum with wine; purgative clyster; blisters on the legs.

5. The child has not cried or tossed about during the night; the face is now slightly flushed, but does not colour up; pupils dilated and motionless; squinting of the left eye inwards; mouth, also, deviates to the left side; respiration deep and slightly stertorous, 42; pulse small and regular, 132; skin dry and very warm; limbs all paralysed; no contracture or convulsions; has passed three fluid stools; the patient hears a little still, for when desired to put out her tongue, she makes a few motions with the lips.

In this state she continued throughout the day; the respiration became gradually more laborious, and she died at six A.M. on the morning of the 6th.

Body examined twenty-eight hours after death.

Head.—Dura mater healthy; the arachnoid which covers the upper surface of the brain looks dry and glazed; there is no effusion in the great cavity of the arachnoid, nor any marks of inflammation on its free surface. The cerebral convolutions do not seem to be much compressed; the pia mater which covers the upper and lateral parts of the brain is excessively injected; the whole surface of the convolutions is covered with a fine vascular injection, running from the different lines of the unfractuosities along the cortical substance. Here and there are seen a few patches of sero-sanguineous effusion in the pia mater, especially at the upper and anterior part of the anterior lobes; the cellular membrane, at the base of the brain, partakes of a similar injection. On the left fissure of Sylvius there is a most extensive deposit of yellow, lardaceous matter, which commences at the left side of the commissure of the optic nerves, and runs upwards, superficially, nearly to the level of the middle part of the hemisphere, where it ends in a point; this patch is about an inch and a half broad at its base, and contains a great number of miliary granulations, which also are found in the neighbouring pia mater. The whole of the cellular membrane covering the lateral and inferior surfaces of the left hemisphere is much more injected than on the right side. The opposite surfaces of the left fissure of Sylvius are firmly united by adhesions of the pia mater; near the edge of the anterior lobe, on the left side, the pia mater is deeply injected, and adheres firmly to the cortical substance; when withdrawn, it brings away portions of the nervous matter at least two lines thick. On the right side, near the fissure of Sylvius, the membranes are free from lesion, if we except a very slight opacity of the arachnoid.

The cerebral substance is firm and moderately injected; the lateral ventricles contain four ounces of turbid serum, and are but little dilated; the posterior part of their floor is infiltrated with serum, softened and of a dotted-red colour; fornix and septum lucidum also softened. On dividing the

cerebral substance, just below the lateral ventricles, it presents a straw-yellow colour, and lower down there is an extensive yellow softening of the nervous tissue, which is reduced to a mere pulp; in one point the nervous substance resembles strawberries bruised up in cream. Cerebellum healthy.

Chest.—The contents of the thoracic cavity are healthy. There are numerous small tubercles disseminated throughout the tissue of the lungs, and the bronchial glands are extensively tuberculated.

Abdomen.—There is some pointed injection about the great curvature of the stomach, but the rest of the mucous membrane is pale. The mucous membrane of the intestinal canal is, also, healthy throughout; there is some arborisation of vessels, near the end of the ileum, but no trace of ulceration or inflammation. The mesenteric glands contain tubercular matter. The liver, spleen, and kidneys are healthy; there are, however, some milary tubercles under their peritoneal coverings, and two excessively small tubercular granules in the substance of the left kidney.

58, Margaret Street, Cavendish Square,
August, 1841.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

SATURDAY, AUGUST 28, 1841.

In a former number we took occasion to make some general observations on the mortality of lunatics, as deduced by Mr. Farr, from the returns of the Hanwell Asylum, of Bethlem, St. Luke's, and Guy's Hospitals, and of thirty-four licensed houses for the reception of the insane. From the facts brought forward by Mr. Farr, in his excellent report read before the Statistical Society of London, it seems to be clearly established that insanity is a highly fatal disease. It is unhappily also, in some one or other of its forms, a very prevalent one. "The persons of unsound mind in England," observes the same intelligent authority, "amount to several thousands. They are usually of middle age, frequently parents, and are of all conditions and ranks of life: 494 lunatics, confined under the crown, possess property yielding an annual income of 317,154*l*. Men of the highest intellectual rank—men of genius—are not exempted from the visitations of this disease; it stoops to the lowest, and disorders the meanest brain. It makes the labourer a pauper, and too often ruins the families of the middle classes." Upwards of 13,600 paupers are in this condition, most of whom require to be placed in confinement at the public expense.

It needs no laboured argument to prove that every attention should be paid both to the treatment and to the prevention of such accumulated affliction, and when it is considered, that the special aggravations of deprivation of personal liberty and seclusion from social and family intercourse for an indefinite period, often for life, attend this condition, even the most careless and the most callous will be ready to lend their aid in the endeavour to elucidate the many points of inquiry which require to be investigated.

Statistical researches into the causes of insanity become of the highest interest, since, by a knowledge of these, we may hope both to prevent the development of the disease in those predisposed to it, and to derive important indications for its amelioration or cure. Much valuable information of this description is given in two able reports which have recently appeared; one from a public institution, the Hanwell Asylum, drawn up by Dr. Conolly; the other from a private institution, the Retreat, drawn up by Mr. Thurnam. Dr. Conolly gives tabular views of the causes to which the unsoundness of mind was attributed in 180 cases admitted at Hanwell during twelve months; 110 of which occurred in males, and 70 in females. Among the 110 male patients, moral causes were assigned in 49, physical causes in 83, and hereditary predisposition in 17. Among the 70 female patients, moral causes were assigned in 40, physical causes in 41, and hereditary predisposition in 9. In 34 cases of the former, and in 25 of the latter class of patients, two or more causes tending to produce the attack were combined. In commenting upon these tables, Dr. Conolly points out that the instances arising directly or indirectly from poverty are very numerous. "Out of 89 cases, in which a moral cause is assigned, more than one-half appear to have arisen from this source." It is also worthy of observation, that among the men, intemperance as a physical cause considerably exceeds any other to which the disease is attributed.

We were curious to compare these statements with those afforded by The Retreat, especially as the class of patients received into this latter institution are, from the known steadiness of character and moral habits by which they are characterized, less exposed to the influence of either poverty or intemperance. Mr. Thurnam's tables comprise the cases of 415 persons belonging to the Society of Friends, or connected with it, and of 54 persons unconnected with that society. He also adopts the division into moral and physical causes made use of by Dr. Conolly, but attempts to indicate separately the predisposing and exciting causes. It is with the table of the exciting causes that the

Hanwell cases most readily admit of comparison. The number of cases attributed to anxiety respecting a livelihood, or pecuniary losses, as an exciting cause, amounts to 31 out of 135, in which moral causes are assigned; but in 159 cases, no exciting cause, either moral or physical, was ascertained; and if these be distributed in the same relative proportion as those in which the cause was traced, we shall have the number of instances arising from moral causes raised to 219, while the proportion arising from poverty, as being a cause at once evident, is not likely to be augmented. If these conclusions be accurate, we shall have the proportion of cases from this cause, poverty and its attendant anxieties, among the Quakers, not higher than 31 in 219, or about 1 in 7; whereas in Dr. Conolly's cases, all of them of the pauper class, it amounted to 41 in 89, or nearly one-half. The Society of Friends are known to be ever ready to assist those of their persuasion who are suffering under reverses, and to do all in their power both to support them in the time of trial, and to contribute towards placing them in more favourable circumstances. It is greatly to be feared that the opposite system now produced by the state and parochial authorities will be followed by an increase in the number of those suffering under mental alienation from this cause; and as paupers of this class become peculiarly expensive, and in a large number of instances, also, permanently chargeable upon the public funds, it is worthy of consideration, in a purely economical point of view, whether some relaxation in the severity of the existing poor-law arrangements ought not to be made.

It has been already stated that intemperance is the most frequent physical cause of insanity among the male patients at Hanwell, no less than 31 out of 83 of the cases of this description being ascribed to this source. The number of female patients in which intemperance is assigned as a cause, is only 4, the total number of cases derived from physical causes among females being 41. Intemperance therefore is a cause of insanity, according to the Hanwell returns, in between one-third and one-fourth of the cases occurring in males, and in 1 in 17 or 18 only of the females. Among the Society of Friends, 16 males out of 59, and 5 females out of 62, in whom physical causes are assigned as giving rise to insanity, were addicted to intemperance, which when compared with the total number of cases of either class traced to any cause, physical or moral, gives the proportions of 16 in 122, or about one-eighth of the males, and 5 in 134, or 1 in 27 of the females. The instances are too few among female patients to allow of any inference, but in male patients, the influence

of the moral education and temperate habits of the Friends is sufficiently apparent, the proportion of cases of insanity among males, attributed to intemperance, being only one-half that observed in the same class of patients treated at Hanwell. The conclusions thus drawn from the table, favourable as they are to the system of moral training pursued in the society referred to, are yet less so than from Mr. Thurnam's observations would seem to be the case. In addition to the 21 cases connected with the Society of Friends, in which intemperance in the use of alcoholic and fermented liquors was supposed to have acted as an exciting cause of the mental derangement, there were 7 others in which intemperance and free living were thought to have acted as a predisposing cause; but of the whole 28, not more than twelve were *members* of the society. Mr. Thurnam remarks, that this is "a somewhat larger proportion than has previously been computed as connected with this cause, the difference being attributable to further information respecting some of the old cases, having been subsequently obtained." In several of the cases, it is thought to be doubtful "whether the intemperance which had preceded the attack of insanity, could really be regarded as its cause; in some of these instances, the amount of intemperance was so small, as justly to lead to doubt in this respect; and, in a few others, it appeared fully as probable that it was one of the modes in which the disorder had manifested itself."

Lest it should be supposed that the higher proportion of cases connected with intemperance among the inmates of the Hanwell Asylum, is attributable to the patients admitted into that institution belonging chiefly to the pauper class, it is right to state, that of 54 cases received at the Retreat, occurring in persons unconnected with the Society of Friends, who were generally from the more opulent ranks of the community, there were 9 in whom intemperance was assigned as the cause. This gives a proportion of one-sixth instead of one-eighth, as observed among the paupers at Hanwell. We are no disciples of teetotalism, nor are we disposed to encourage a system which, as it seems to us, is founded upon false principles, but as affording evidence of the evils of intemperance, and as showing that here, as in every other instance, immorality of whatever kind entails its own punishment, and exhibits its own special warning against the dangers which lie around its path, these statistical researches possess great value. No one can with impunity offend against the physical laws of organization, and sooner or later the transgression of these laws is followed by the visitation on the head of the offender, of the

peculiar consequences of the individual excess in which he indulges. Intemperance in the use of fermented liquors exhibits a long and fearful array of such consequences, and among the most prominent of them is the overthrow of that reason which distinguishes man among the animal races, and exalts him to the station of an intellectual and accountable being. Derangement of the visceral functions, broken down physical powers, destruction of the organization, and the whole assemblage of hepatic, venal, dropsical, and other affections, with which the last days of the drunkard are rendered days of suffering to himself, and of distress to those around him, are as nothing, compared to the ruin and devastation inflicted on his mind. The temporary delirium in which it is his delight to indulge, is too often but the forerunner of the long-continued or permanent aberration of the maniac, or the drivelling imbecility of the demented or the idiot.

On looking through the other causes enumerated in the lists, we were struck with the large proportion of cases attributed to disappointed affections among the patients in the Retreat, as compared with those at Hanwell. In the latter institution we find six instances entered under this head, four of which occurred in males, and two in females; in the former twenty-two, or including disappointed matrimonial plans, which, perhaps, may be referred to the same head, twenty-nine; of which twelve were in males, and seventeen in females. In addition to these there were also eight other instances occurring in patients not connected with the Society of Friends, seven of whom were females and one a male. The circumstance is worthy of remark, as showing that no class of society is exempt from its own peculiar trials, and that if the poor suffer from the vicissitudes and want inseparable from their condition, the more opulent are exposed to other influences, arising out of the restraints and ties imposed upon them by the usages of the state of society in which they are placed, which may prove no less trying to the powers of endurance, and equally injurious to the general welfare of those exposed to them.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

FOURTH REPORT ON MEDICAL EMPIRICISM.

(Presented at York, August 3, 1841.)

IN directing your attention, for the fourth time, to the important subject of medical quackery, we feel it unnecessary again to occupy your valuable moments with details explanatory of the extent and evils of this hydra-headed system. These have already been fully and sufficiently exposed in our former communications, and the question

must now be so familiar to all acquainted with our proceedings, that any additional evidence would be both irksome and superfluous.

The difficulties we have at present to contend with are therefore not those arising from deficient information, but from the diversity of opinion and feeling which continue to exist among the members of the medical profession, in respect to the policy or practicability of attempting the suppression of empiricism by legal penalties and restrictions.

It is to this question that we shall venture, on the present occasion, more particularly to direct the attention of the association, as on its right comprehension depends how far legal restrictions against quackery shall be incorporated in the contemplated measures of medical reform; or whether so flagrant and dangerous an abuse shall be left to those tardy executioners of error and imposture, viz. "the diffusion of knowledge," and the "common sense" of the public.

Regarded as an abstract question, perhaps few if any differences of opinion would be found to prevail, all being sensible of, and all fully admitting, the great evils inevitably arising from the ignorant and indiscriminate application of medicine; but, when the subject is discussed with a view to impose legal restraints upon quackery; to call upon government to protect the public from the fatal practices of ignorant and unprincipled men; to ask them to withhold their practical support of so injurious a system, by withdrawing their licenses and stamps; to point out the utter insufficiency of the powers vested in the existing corporations; to show the injustice of enforcing long and expensive courses of education, where no privileges are legally secured, and no protection afforded; when these are the objects brought prominently forward and strongly enforced, it is then we discover the discordancy of our views, and the opposing opinions which prevail, as to the nature and extent of the measures it would be desirable to adopt.

If we, therefore, for a moment advert to some of the more frequently urged objections against legislative interference, and again attempt very briefly to expose their feebleness and fallacy, we crave the indulgence of the association, on the ground, that until greater unanimity exists on the part of the profession, as to the policy and desirableness of enforcing legal penalties on the quack, and for still more penally restricting the circulation of his nostrums, no radical improvement can ever take place, no effectual protection for the public be secured, nor the privileges of the qualified practitioner be properly upheld.

No medical reform, let it be remembered, can ever be accomplished, unless it originate in the strongly-expressed will of the great body of the medical profession; and if quackery is ever to be checked, we must be the assailants; and our opposition, to be felt, must be *decided* and *combined*. Urging, therefore, the members of the association to what we believe to be just views upon this point, is an essential preparatory measure for obtaining effectual redress.

Some objectors lazily avail themselves of the palpable facts of the case, dwelling upon the great extent of the evil; the infinite gullibility of the public; upon quackery existing *in*, as well as out of the profession, thence deducing the hopelessness and absurdity of all legislative interference.

If themselves somewhat victimized by the system at whose dimensions they are scared, a momentary sympathy may be excited in the labours of those who are zealously but hopelessly opposing it; or if their path be easy and their pockets well lined, they take shelter under a spurious liberality, and magnanimously resign themselves to abuses of which they are personally independent.

Others, again, take their stand upon the principle, that as all governments are venal, there is no chance of reform at the expense of the revenue; but they are willing to unite to any verbal extent in their denunciations of empiricism, admitting at the same time that they have never given the subject their particular consideration.

A third class—pretended advocates for the liberty of the subject—assert that any attempt to suppress quackery by law would be firmly resisted by the British public, which would never consent to be dictated to, as to what drugs they should swallow, or as to what doctor they should consult; such objectors being ignorant of what the legal suppression of empiricism really means, and forgetting the rather important fact, that this same public has for centuries quietly submitted to repeated legislation on the subject, which has hitherto proved insufficient, not because it was hostile to the popular notions of personal liberty, but because it was wholly inadequate to the extent and nature of the abuse it was intended to rectify. One great object of all chartered medical bodies was to suppress and punish the unqualified pretender—justly regarding him as a nuisance to society, and as amenable to the laws as any other public offender. Asking for efficient means to carry out the principle which has constantly been admitted, and to a certain extent acted upon, is therefore consistent both with precedent and reason.

No one can be so foolish as to suppose it to be either desirable or practicable to interfere with the private conduct or feelings of any individual, as to the advice or medicine he may see fit to select; but it is clearly the duty of the state to protect all against the false pretensions of ignorant and unprincipled men, who pretend to knowledge which they do not possess, who circulate their nostrums under the grossest lies and misstatements, and who avowedly traffic upon public ignorance and credulity.

A fourth class—the creation of the nineteenth century—fluently declaim upon the “diffusion of knowledge,” as the great destroyer of quackery; and amuse themselves by future visions of popular familiarity with the laws of health and disease, anticipating a neutralising power in the public mind, which will instinctively recoil from the base arts of the empiric, and establish the reign of science and common sense in our land. These are enthusiasts in their recommendations of popular treatises and lectures, and the whole current of their thoughts and hopes seems to flow in an imaginary stream of public enlightenment, which is disturbed in its progress by all measures of a more direct and practical character, but less complimentary to the march of intellect, and evincing less confidence in the all-prevailing power of popular wisdom.

These amiable romancers seem to forget that the world has already lasted more than six thou-

sand years, and that during that tolerably long probationary period, no record yet exists of quackery retreating before popular education; but, on the contrary, its greatest triumphs are among the most civilized communities, and many of its supporters and victims have been educated far beyond the standard which the most sanguine of modern worshippers of knowledge can ever suppose will characterise that of the mass. England is the very hot-bed of quackery, and the boasted nineteenth century its most flourishing era. If its pretensions are not now clothed with the superstitious badges of a darker age, they are yet equally at variance with the first principles of reason, and equally demonstrative of human weakness and credulity. To look forward to a time when the public mind shall be steeled against humbug and imposture, is to indulge in the wildest extravagance, and to foster expectations which all past experience pronounces as hopeless and vain. It would be just as reasonable to set aside all human government, on the ground that a time is coming when crime shall cease, as to withhold restrictions upon quackery, upon the plea, that it will ever be erased from the long catalogue of human knavery and folly. “This destructive monster,” says Dr. Symonds, in his admirable retrospective address, “shows no signs of decrepitude in these days of refinement, but rather rejoices in the vigour of a lusty manhood, culling its victims almost equally from among wise men and fools; not less from the ranks of the delicate, the high born, and highly cultured, than from the coarse and illiterate vulgar. Many have flattered themselves that they might see it sink into gradual decline, and die a natural death; but of this there is little probability, while it finds so large a store of the proper food in the ignorance and credulity of the public. If (he says) we are to witness its downfall, let us indulge no delusive hope of its tottering from its own weakness and decay, it must come to a violent end, and that by the hands of a legal executioner.”

There are still others, who, endowed with exquisite sensibilities, shrink from coming forward and demanding the legal suppression of empiricism, on the plea that, as members of the medical profession, they are personally interested in the result, and it would be indelicate on their part to interfere.

With such we confess we have no sympathy. Their tender consciences forget that, as medical men, they are bound to *protect* as well as to *serve* the public, and that the dangers and abuses of quackery are precisely those evils which they are called upon to expose and, if possible, to prevent. They are alone either able or entitled to do it, and to withhold their efforts from the fear of imputed selfishness of purpose involves a laxity of moral courage, which we trust will find but few imitators among the members of a liberal profession.

Having thus rapidly adverted to some of the more frequently urged objections against our uniting as a body in demanding legislative restrictions upon quackery, we shall now briefly direct the attention of the members to those points in the present aspect of empiricism, where government may easily and effectually interfere.

No one can deny that it is in the power of our rulers to withdraw the sanction of stamps and

patents, which are indiscriminately affixed to any nostrum which the most ignorant may see fit to compound, and which are now freely circulated under government authority, without the slightest examination of their value, or the slightest limitation of the statements with which the projector may see fit to accompany them. The public necessarily attach importance to these symbols of protecting power, and are naturally inclined to suppose that government would not allow or sanction anything which they believe to be consistent with the public good. Against this open patronage of quackery we have a right and are bound to protest.

As a legally constituted profession, and as guardians of the public health, we have also a right to demand that no individuals be allowed to practise medicine without a legal qualification to do so; and that no nostrum be advertised or recommended to the public, unless its value and safety be previously ascertained by competent authority. Also, that all institutions established for the cure or relief of disease, be declared illegal, unless conducted or inspected by legally qualified medical men.

As protectors of the national health, as members of various corporate bodies, expressly constituted to provide an efficient medical education, and for restricting the unqualified, we are morally bound to petition for, and on public grounds to urge strongly the enforcement of the above regulations; and there is no doubt, that were we firmly and unitedly to express our opinions upon the subject, we should succeed in obtaining more efficient protection for the public and ourselves than has ever yet been afforded.

That the above measures would materially diminish the extent and fatality of medical quackery, that they would greatly curtail the number of guilty speculators, and, if properly enforced, annually save the loss of much health and many lives, no one at all practically acquainted with the question can hesitate to admit; and whether we succeed in obtaining their enactment or not, it is equally our duty fearlessly to expose the evils of the system, to suggest the remedy, and to urge redress.

To place empiricism under the ban of illegality, to withdraw it from the limits of legal sanction and protection, to deprive it of the powerful assistance of the press, are objects simple and practical in their nature, and no less certain in their results.

Let us, therefore, steadily seek their attainment, and whether pursued in connexion with more general measures, or singly advocated, let us think no reform to be sufficient in which they are not fully included.

Whatever professional grievances and abuses may exist within our ranks, and they are many, nothing can justify the continuance of those now more particularly alluded to; and we believe that both the usefulness and respectability of the medical profession would be materially increased by firm and consistent legislation against whatever violated either its privileges or its interests.

Destroying quackery without would doubly degrade its promoters in our own ranks, exposing them to penalties from which they are now exempt, and ensuring the contempt and reprobation of every upright and reasonable mind.

Professional quackery is of all others the most culpable and disgusting, and we feel that one element of its destruction is the moral consciousness of our collective honour, which associations like our own tend to engender and encourage.

If such be our influence, may we long flourish and continue, hostile to abuses wherever they may exist, and sensitively alive to our individual and corporate purification.

CAMBRIDGE ANATOMICAL MUSEUM.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—In the account published by you, of the proceedings at the dinner of the Provincial Medical and Surgical Association, it is reported that Dr. Fisher, in his reply to the toast of "the Universities of the United Kingdom," described the Anatomical Museum of Cambridge as having "lately risen up," by which most people would understand that the preparations were lately made within the walls of the university.

I confess I was much surprised that a medical graduate and fellow of Cambridge should appear to be so ill informed with respect to the anatomical collection belonging to the school in which he must at least have been partly educated. I thought that every person connected with the University of Cambridge knew that the late great accession to the anatomical collection was the transfer of my museum from Dublin, which was called, in all the acts of the senate respecting it, *the Macartney Museum*. It is also pretty generally known, that I have spontaneously made valuable donations to the collection since it was purchased, and for which I repeatedly received the thanks of the vice-chancellor. These donations, as also any I might make in future, could only be intended to increase the value of that part of the collection which was distinguished as mine, and thereby add to my own reputation.

I entirely, however, agree with Dr. Fisher respecting Professor Clarke's talents and zeal, for which I have the highest esteem, and am ready to testify that the preparations he has himself produced are fine examples of skill, patience, and delicacy of hand; but, from all my intercourse with him, I have every assurance that he would be the last person who would omit my name, in speaking of the present anatomical collection in the University of Cambridge.

Perhaps there is no person who has laboured so long and so earnestly in the public service as I have, who cares so little for public opinion; but when mistakes are made, it is as much justice to others as to ourselves to rectify them.

Your giving the preceding a place in your Journal will oblige

Your faithful servant,
JAMES MACARTNEY.

Merrion Street, Dublin,
Aug. 24, 1841.

ARTIFICIAL ANUS FORMED WITH SUCCESS

IN

THE ASCENDING ARCH OF THE COLON, WITHOUT WOUND OF THE PERITONEUM.

By M. AMUSSAT.

MADAME B., aged 50, after the cessation of the catamenia, had more than usual difficulty in going to stool; the constipation became more obstinate, and could only be overcome by repeated enemata. The appetite, however, remained good, and the symptoms did not give much uneasiness, till the 27th of May, when, four or five days having passed without an evacuation, Madame B. was obliged to apply to a medical man, in consequence of suffering from severe pain.

Twenty-eight leeches were applied to the epigastrium; enemata and mild laxatives were prescribed, but without any good effect. M. Chomel, and at a later period M. Deguise was called in, and enemata, drastic purgatives, and various other means, were employed without any benefit.

On the 27th of June, M. Deguise having exhausted all his resources, considered that relief could only be obtained by the formation of an artificial anus, and sent for M. Amussat. Thirty-four or thirty-five days had then elapsed since Madame B. had passed any evacuation per anum; the abdomen was much distended, and its parietes so thinned, that the coils of the intestine could be distinguished, distended with gas, giving, on percussion, a clear tympanitic sound.

The patient being placed on the face, the right lumbar region seemed somewhat more distended than was the left. A gum elastic catheter was passed up the rectum, but at the height of six or eight inches it bent, and could be passed no farther; on examining by the vagina, it was found that the catheter was in fact curved on itself, and that the uterus was not displaced, but was perhaps somewhat larger than natural. Enemata were expelled almost immediately on being thrown up, and without bringing away any faecal matter.

Although it was impossible to determine, after long consultation, what was the cause, the nature, or the seat of the strangulation, M. Amussat determined on performing his operation, by making an artificial anus without wounding the peritoneum.

On the 28th of June, MM. Amussat and Deguise again employed forced enemata, and repeated their examination, without obtaining a more satisfactory diagnosis as to the seat of the obstruction. No point of the abdomen sounded dull on percussion; neither lumbar region was more arched or more prominent than the other; under such embarrassing circumstances, we resolved to consult some of our brethren most capable of throwing light on the subject.

MM. Magendie, Breschet, Chomel, &c., assisted in a discussion on the case, and it was decided to again employ forced enemata, ascending douches, and galvanism, and, in the event of their failure, to perform the operation which M. Amussat had already successfully practised.

These means were unavailingly employed on the 28th and 29th. On the 30th all was prepared for the operation, to which, however, the patient refused to submit.

July 2.—The patient was very feeble; pulse small and frequent, breath foetid, and the surface exhaled a stercoraceous odour; bilious vomiting more abundant, abdomen very tense, and during the night severe epigastric pains. Another consultation was held in the evening with MM. Magendie, Breschet, and Chomel. The propriety of operating immediately was agreed upon, but those present differed as to the point at which the artificial anus should be formed. Some thought that the left lumbar colon should be the part selected, as that part would probably be distended, the obstruction, they thought, lying below it, since the patient could not retain even a single enema; others, on the contrary, considered that diagnostic sign was insufficient and deceptive, as the same occurred in some persons in perfect health, and they recommended that the right lumbar colon should be opened. The latter was M. Amussat's opinion; he was inclined to cut down on the ascending colon, open it if it was distended, and if not, was determined to cut down in front of the cæcum, discover the termination of the small intestine, and then search for the seat of stricture.

July 3rd, at 6 A.M., the operation was performed in the presence of MM. Breschet, Deguise, L. Boyer, and other medical men.

The patient was placed on a mattress, the abdomen on a pillar, so that the lumbar region was prominent, and each lumbar region presented the same volume, and yielded the same sound on percussion. An incision, nearly four inches long, was made transversely in the right lumbar region, midway in the space separating the crest of the ilium and the last false rib, and commencing at the common origin of the sacro-lumbar and longissimus dorsi. The edges of these muscles being divided, as also the adjacent tissues, the operator soon arrived on the quadratus lumborum, which was easily recognized by its very oblique direction downwards and outwards. He cut the edge of this muscle, and dividing the anterior layer of the posterior transverse aponeurosis, he perceived the cellular tissue intervening between the adipose mass covering the kidney and colon. He then divided vertically the fat which always lies above the kidney, and examining posteriorly he felt a distended intestine. This was the lumbar colon, uncovered by peritoneum: it was recognized by the resistance of its parietes, and by its muscular fibres, which are more developed than those of the small intestine. It was also recognized by others present.

This capital part of the operation being determined, M. Amussat passed, with a curved needle, a thread through the coats of the intestine, so as to fix it, and then punctured the intestine with a small trochar; a quantity of gas and a very little feculent matter issued from the canula, but, on withdrawing it, so much air was infiltrated into the surrounding cellular tissue, that he had to cut it away to leave the colon exposed. The colon being now stretched by means of the ligature previously introduced, the operator laid it freely open in a vertical direction, with a blunt-pointed bistoury; the edges of the opening were kept apart by three torsion forceps. He now broke up with the index

finger, introduced into the intestine, a quantity of indurated feces, on which a considerable quantity of fecal matter escaped. The semi-solid feces were mixed with a considerable quantity of gooseberry seeds and cherry stones. The evacuation of feces was facilitated by injecting lukewarm water into the upper and lower portion of the open colon. When the issue of fecal matter was less abundant, the opening into the cœcum was fixed as near as possible to the inferior angle of the wound, by means of five points of interrupted suture, taking care to evert the mucous membrane, and the posterior angle of the wound also united by a point of twisted suture.

The patient was placed in bed, supported on the right side to facilitate the issue of the feces; the artificial anus was covered with a large poultice, and the wound was directed to be frequently washed with tepid water.

In the evening the patient was cooler and relieved; the abdomen was soft and free from pain on pressure; gas and feces frequently issued from the artificial anus; the pulse had become strong but not frequent. The next day she had passed a good night; no vomiting; pulse 70 to 80.

5. She asked for food, and her condition was improved; she was somewhat stupified from the effects of an opiate enema.

6. M. Amussat introduced his little finger into the artificial anus, and administered a small enema, which was not returned. The patient thought she had passed some flatus per anum.

8. All the sutures are detached; the artificial anus is solidly adherent to the wound, which looks very healthy. On passing the finger into the artificial anus after throwing in an injection, it touched the kidney through the coats of the colon, and distinguished fecal matter in the inferior portion of the ascending colon. The evacuation of feces is very abundant; abdomen soft, and bears pressure; no fever.

10. Condition unaltered; the abdomen is still somewhat voluminous, because the intestines were so long distended that a certain lapse of time is requisite for the mucous membrane to resume its natural condition.

14. The condition of the patient is perfectly satisfactory; the appetite and strength both augment. The artificial anus is perfectly established; it is situated at the inferior angle of the wound; and as it has some tendency to contract, may be dilated with a tent of lint. Enemata have been given daily, and favour the issue of a large quantity of feces.

15. Madame B. thought that she had passed some feces by the rectum. To ascertain if this was so, M. Amussat introduced the finger into the rectum, and found that it had shrunk from before backwards, but met with no fecal matter; on withdrawing the finger, the hand was stained with blood, which seemed to come from the vulva, and not from the anus, as the patient supposed. On administering an enema per rectum, some fragments of caseous matter and some hard black fecal scybala passed away. By the finger in the vagina it was ascertained that the uterus lay towards the left side, the neck posteriorly, and was thick and hard, and its surface and cavity were covered with vegetations. The finger was stained with blood, and some clots came away. Madame B. said that her catamenia had returned, and that

the blood had accumulated in the womb during four months.

17. The patient has had some pain in the abdomen, occasioned by error in diet. The wound is contracting favourably. No blood has escaped from the vulva since yesterday.

22. After the administration of an enema by the rectum, a cylinder of black soft moist feces passed by the natural anus. But the evacuations continued abundant from the artificial anus.

August 2. The patient is now, thirty days after the operation, in a most satisfactory state. The appetite and strength have returned; the artificial anus is completely established at the anterior part of the wound, and admits of the entry of the fore finger. The wound is not quite cicatrised, but is much contracted. Every thing promises that the success will be permanent, and that the patient will soon only suffer from an infirmity which is very supportable, and to which she owes her life.—*Gazette des Hôpitaux*, No. 93.

ANALYSIS OF FOREIGN JOURNALS.

LITHOTRITY PERFORMED IN THE FIFTEENTH CENTURY,

By A. BENEVIENI.

"A CERTAIN nun laboured under retention of urine for twelve days, from obstruction of the passage by a calculus. As the use of the catheter (*anea fistula*) and other means failed, I fixed a hook on the stone, lest, when struck, it should be pushed back into the bladder; I then struck the stone frequently with an iron instrument, until it was broken up into small pieces, and having exercised due diligence to avoid injuring the internal parts, I withdrew the hook and rod; on doing which, the fragments of stone were discharged; the urine passed freely, and the woman was restored to health."—*A. Beniveni de abditis nonnullis ac mirandis morborum causis liber. c. xxx. Exam. Med. No. 8.*

CURE OF IRREGULARLY-UNITED FRACTURE BY EXCISION OF THE CALLUS.

CASE I.—F. Mistretta, 32 years of age, was admitted into the hospital of Palermo, on the 20th of April, 1837, with compound fracture of both bones of the leg. After the use of antiphlogistic remedies, the limb was placed in Scultetus' apparatus, but numerous abscesses formed, and the frequent dressing rendered it impossible to keep the limb at rest. The consequence was, that the bones united at an angle; an attempt was made, but fruitlessly, to break the callus. M. Portal, therefore, resolved on excising the angular portion of bone, and on the 23rd of May removed about an inch with the chain-saw. The wound united by the first intention, and the limb was kept at rest for forty days. The patient was quite well on the forty-eighth day, and left the hospital with slight shortening of the foot, which was easily concealed by a shoe.

CASE II.—Grazia Sinelli was admitted into the civil hospital, on the 16th of November, 1840,

with fracture of the upper third of the thigh. The superior fragment projected through the integuments; the limb was enormously swollen, tongue dry, thirst great; the patient, who was drunk, could not be kept quiet. She was bled from the arm, and one hundred leeches were applied to the thigh, to prevent gangrene. When the inflammation was reduced, Boyer's splint was applied, and allowed to remain on for twenty-eight days; it had, however, been frequently displaced by the patient, and on taking it off, it was found that the fracture was united at an angle. Here, as in the former case, it was found impossible to break the bone again; hence, resection was had recourse to on the 26th of December, 1840. A vertical incision, about four inches long, having been made in the integuments, and the muscles separated, an inch and a half of the superior extremity, and half an inch of the inferior one, were removed with the chain-saw. No bad symptoms occurred after the operation, and on the fifty-fifth day the patient left the hospital with a shortened but useful limb.—*Fil. Seberio et Esam. Med.*

URINARY CALCULI AND CHALK STONES.

M. de Bouys has confirmed the results of Mr. Ure's experiments, by converting uric into hipuric acid with the aid of benzoic acid. Uric acid and the urates are nearly insoluble, while hipuric acid and the hipurates are, on the contrary, very soluble. Thus ten parts of water will dissolve one of hipurate of lime, while it requires 440 parts to dissolve one of urate of lime. Two experiments made in the wards of M. Rayer, at La Charité, with benzoic acid, have produced encouraging effects.

MEDICAL CLUBS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—The important additional information supplied by Mr. Copeman of Coltishall, relative to his medical club, in No. 46 of your journal, induces me to explain briefly those remarks of the Provincial Poor-law Committee which called forth his rejoinder.

In Mr. Copeman's original report to Dr. Kay, printed with the parliamentary evidence, there is not the slightest intimation that the "free subscribers" were all "heads of families;" so that we could only interpret his statement, in conformity with the reports of other self-supporting institutions, in which subscribers, or "free members," are generally understood to mean *all who are entitled to receive the benefit of the society*.

Had Mr. Copeman at first mentioned the actual number of persons entitled to relief, as he has now done, the misunderstanding would have been avoided. The number of heads of families, or persons held responsible for payment in these clubs, is, of course, very variable and uncertain, and would be useless in any attempt to estimate the soundness of their condition. It would greatly promote a correct and impartial judgment as to the real

value and advantage of medical clubs, if the surgeons to these institutions would furnish facts similar to those which Mr. Copeman has published, together with others equally important:—for instance,—the *total* number of members belonging to the club, at the end of each year, from the period of its establishment; the number of individuals who have received relief during each year; the number of cases attended; the average duration of these cases; the annual amount of the subscriptions of the members; and the amount actually received by the medical officers.

If any of your readers will supply such particulars, I am ready to engage, in behalf of my colleagues, that the materials thus collected shall be fairly analysed; and the result, whether it be for or against the club system, shall be laid before the profession.

Your obedient servant,

THE SECRETARY OF THE POOR-LAW COMMITTEE OF THE PROVINCIAL ASSOCIATION.

Gloucester, August 19, 1841.

BOOKS RECEIVED.

The Graveyards of London; being an Exposition of the Physical and Moral Consequences inseparably connected with the Custom of Depositing the Dead in the midst of the Living, &c. By G. A. Walker, Esq., Surgeon. Longman and Co., London, 1841. 8vo. pp. 46.

Three Memoirs on the Developement and Structure of the Teeth and Epithelium, &c., with Plates. By Alexander Nasmyth. Churchill, London, 1841. 8vo. pp. 47.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of Gentlemen admitted Members on Monday, August 9, 1841.—Thomas Wharton Jones, William Henry Kater, Christopher Hill Dobson, Henry Albert Lee, Edwin Chesshire, Richard Shocklidge Leggatt, Richard Harris Williams, James Charles Wells, Charles White.

Friday, August 13.—Thomas Coates, John Rogers, George John Gates, John Cockin, Frederick William Richard Sadler, William Gregson Gregory, Thomas George Dixon, John Ligertwood Paterson, Richard Trafford Whitehead, George Edward Dunsterville, Edward Harris Derriman, George Robert Irons, Charles Lydial Leet, Henry Edward Beck.

Printed by THOMAS ISOTSON, of 103, St. Martin's Lane, in the Parish of St. Martin in the Fields, and GEORGE JOSEPH PALMER, of 20, Regent Square, in the Parish of St. Pancras, at their Office, No. 3, Savoy-street, Strand, in the Precinct of the Savoy; and published by JOHN WILLIAMS RUMNEY, at his Residence, No. 6, Wellington-street, Strand, in the Precinct of the Savoy.—Friday, August 27, 1841.

PROVINCIAL MEDICAL & SURGICAL JOURNAL.

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PRICE SIXPENCE.
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COURSE
OF
LECTURES ON PHYSIOLOGY AND
SURGERY,
DELIVERED AT ST. GEORGE'S HOSPITAL,
BY JOHN HUNTER, F.R.S.
(From the Manuscript of Dr. Thomas Shute.)
LECTURE IX.
ABSCESS.

THE former lectures have been on the principles of surgery and their general application; the following will contain a more particular application of the principles to diseases. A ready application of the principles of the art constitutes a good surgeon. For the cure of diseases, it is necessary to understand the animal economy and the operations of the body under disease. It is also necessary to understand the structure of different parts, and in what manner they are affected when diseased. Different parts of the body are very differently affected when diseased, and give very different sensations. Therefore, the effects of a disease ought to be considered according to the structure of the part diseased. It is, therefore, not only necessary to understand the general economy of the constitution, but also the economy of its particular parts, to know how to treat diseases properly: for the difference of a disease in different parts arises from the difference of economy. But in specific diseases, as cancer, scrofula, venereal, &c., I think that every part is similarly affected, for the specific disease in such cases prevents the specific action of the parts; but in diseases arising from accident, the effect will be very different in different parts.

The parts of the body may be divided into those which are vigorous and have a strong disposition to heal, and those which have little power, a backwardness to inflame, and little tendency to heal; such as bone, ligament, tendon, and periosteum. Those parts which have the strongest power to heal, are cellular membrane, skin and muscle. When parts are injured whose powers are weak, all the parts which are near sympathize with them; therefore, in injuries of tendons, ligaments, fascia, &c., we have frequently considerable wasting of the limb. The same degree of mischief done to a part whose powers are strong, will produce no such effect; the part being capable of managing the disease, every other part performs its natural functions undisturbed. After violent strains there is frequently a wasting of the whole limb; every part of it being affected by sympathy, takes on the same indolent action as the part injured. The cellular membrane has the strongest disposition to heal; but this disposition is not the same in every part. When situated near parts whose powers are strong, as skin, or muscle, there it will heal quick; but in those parts whose powers are weak, the cellular

membrane situated near them partakes of the same disposition. The cellular membrane always partakes of the disposition of the parts to which it is near, therefore the same degree of disease will affect it differently in different parts. The disposition for healing is also great, in proportion to the nearness to the heart. Those parts of the body which have a backwardness to inflame, give different sensations in health and disease from other parts. This may be tried on the tendo Achillis, which gives a very different sensation when pinched than a muscle. When diseased, they give a heavy kind of pain, something like pinching.

Abscesses, from their different causes and effects, require very different treatment. Every inflammation producing suppuration, which is not on a surface, causes abscess. Abscesses may be divided into sound and unsound. Those which go through all their stages rapidly—inflammation, suppuration, ulceration, and healing, require little or no surgical treatment: these may be called sound. I call that a sound abscess where the constitution is healthy, and the abscess seated in a part which is sound and has strong powers for healing. In sound abscesses, as the ulceration advances towards the skin, it appears of a very florid red. Others, which are very backward to heal, performing their different stages slowly, may be called unsound. The first principle of treatment is to rouse the part, causing it to perform its operations quick; the quicker they are performed the better it will heal. Opening freely rouses the part very much, the stimulus of exposure causing it to endeavour to recover the skin. If it is not necessary to open freely, then the opening should be depending. The depending opening is to prevent any lodgment of matter, the pressure of matter retarding the cure.

A man who had a large abscess in his side, which extended over the ribs, was taken into St. George's Hospital; there was an opening at the top, through which the matter discharged itself. In examining it, the probe appeared to pass on the inside of the ribs into the chest: I resolved on doing nothing to it, fearing that I might kill the patient. The patient continued in this state for six months, when a fluctuation was felt at the bottom; the matter was coming through the skin at the part; I then opened it from one end to the other, and it healed.

In this case the pressure of the matter which lodged, was just sufficient to prevent granulation, but not enough to produce ulceration; at last it began to ulcerate at the bottom, and would have made an opening sufficiently large to have cured the patient; but that it might heal the quicker, it was opened from one end to the other. Sometimes abscesses take on an indolent disposition before they are cured, which we frequently see in old sore legs.

The cure of abscesses is frequently retarded from their situation. When an abscess is deep-seated,

the matter often makes its way to the surface by a small opening when compared to that which is the seat of the abscess; the external opening, taking on the disposition to heal very quick, almost closes, while the seat of the matter is very large; the matter continually passing through the orifice, prevents it closing quick, yet it is sufficiently small to retard the matter, which prevents it granulating at bottom; therefore, such abscesses are very apt to become fistulous. In such cases, invigorating applications ought to be applied to the bottom of the wound and to the external opening, such as retard its closing.

Further, to illustrate the disproportion which there is for healing between the bottom of an abscess and the canal through which the matter passes, it is to be considered that the bottom is the seat of the abscess, and consequently an unsound part, while the canal is a perfectly sound part, and only formed for the evacuation of matter. The bottom, therefore, being unsound, and the canal sound, the latter has a much stronger disposition for healing than the former. Deep-seated parts have not the same strong disposition for healing as those which are superficial; they remain easier under disease, therefore are apt to become indolent and remain fistulous. Many local diseases will be difficult of cure from the nature of the part, as tendon, fascia, bone, &c.; likewise from their situation being sometimes out of the reach of surgical treatment. A part of the same structure which is situated near the source of the circulation, will heal better than one that is distant. A very material distinction should be made between the treatment of a part which has a natural slowness to heal, and one that is acquired. Those parts which have a natural slowness to heal have but weak powers, little life. The power which they have, they will exert to the utmost, therefore they ought not to be stimulated to greater action, lest by that means the life of the part be destroyed, producing the sloughing of tendons and exfoliation of bones. They should be treated with soothing applications.

On the contrary, those parts which are naturally vigorous, but have acquired an indolence under disease, must be stimulated, to rouse them as much as possible.

Poultices applied to abscesses while they are suppurating, are of use in moistening the skin and soothing the part. Sores become indolent from long-continued exposure; when first they are exposed, they are very much stimulated to action; this stimulus gradually diminishes, and at last ceases from habit; therefore, when parts are to heal, we should hurry them on as fast as possible to do it, lest they should get into an indolent habit before the work is performed.

Unsound Abscess.

In order to cure a part which is difficult to heal, we should first attempt to find out the cause of its slowness; this sometimes is very difficult. The backwardness to heal may arise from indolence or irritability in the part.

I was sent for to a boy who had broken his shin; it had continued for three weeks, and had not healed at all, but had rather grown worse; when I saw it, the wound was very foul, and surrounded with inflammation. I suspected this might arise from an indolent cause, and therefore applied basilicon with precipitate for two or

three days, but found that it got worse, forming a thick white slough. I then inquired what kind of flesh the boy had to heal; if he scratched or cut himself, whether it healed quick or festered? The answer was the latter. I then applied a bread and milk poultice, with some opium, and the sore took on the healing disposition directly, and was soon well.

Indolent Abscess.

When a part is indolent, this may frequently be known by the cause. A slow and long continued stimulus will cause this frequently from pressure, as in the shoulders of draught horses and oxen, the knees of the camel, the tunica vaginalis in the hydrocele, and the cysts of encysted tumors. Thus a gradual pressure long continued will cause parts to grow thicker and indolent, not being so susceptible of injury as they were before. It appears rather extraordinary, that the same cause should produce such opposite effects, as the increase of a part or its destruction, for if the pressure is increased it produces ulceration.

Abscesses likewise are of two kinds; diffused and circumscribed.

Diffusion may arise from the parts near it being of the same nature, as in the cellular membrane, or from constitution.

Both the constitution and nature of the part will be a cause of the inflammation spreading. Parts of the same nature sympathize more strongly with each other than those which are different. The circumscribed nature of abscess is owing to the part having none near it of the same kind, as in a lymphatic gland; when there is an inflammation in it, there it is confined, not extending into the cellular membrane, nor does the skin partake of it or any of the neighbouring parts. When an abscess is unhealthy, the swelling is without pain. of a stony hardness, and exceeding slow in forming any fluid; when it is opened the fluid is glary, mixed with curdy matter, never forming good pus.

Slow swellings always become more hard than those which increase quickly. When these swellings suppurate, it seems to be more for want of life than from any exertion in them.

A woman, in St. George's Hospital, had a tumor in her side, which had been eight months in coming; when it was opened, it contained a fluid similar to that just described.

It will be much better to cure these swellings by resolution than suppuration, but a practice must be observed in these cases, contrary to that in healthy abscesses, for, instead of soothing the part, we are to stimulate.

The hardness in sound abscesses arises from the coagulable lymph extravasated in the cellular membrane, which will be taken up when the abscess is resolved; but in an unsound abscess it arises from an addition of the solids; therefore, to reduce the hardness more effectually, it will be better to cause ulceration by suppuration, which may be done by raising a violent inflammation in the part. Producing inflammation may alter the disposition.

Indolent abscess should not be opened soon, for if the hardness is not removed by the ulceration, it will not probably afterwards. When the hardness is gone the opening may be made, which should be very large, exposing the parts as much

as possible, not by a longitudinal incision only, but by crucial incisions; the more violence done the better it will heal, therefore scarifying the sides of the wound will frequently be useful. Although in these cases we are to increase the living powers as much as possible, and that is to be done by violence, yet such violence must be moderated, lest a mortification should be produced. By opening late, the contained matter acts as a stimulus, and may tend to produce the healthy inflammation. If the indolence of the part returns, which frequently happens, the granulations looking pale, glassy, and soft, with a black and ichorous discharge, the lips of the wound becoming thick, callous, and sometimes turning outward, then stimulating applications should be used; such as warm balsamics, precipitate, and tincture of myrrh; this last, when used, should be applied three or four times a day to produce much effect, because it soon becomes dry. Tincture of bark and a solution of lunar caustic are stimulating applications. If we want to heal quick in these cases, we ought to dress them three or four times a day. It is necessary, every now and then, to change the stimulant, because one, from being applied for a length of time, may lose its effect.

In indolent tumors, which produce a curdy matter, instead of an healthy suppuration, we ought to raise an inflammation by violence, to alter the disposition of the part, and produce good granulations. If we want to produce resolution, we ought to increase the powers of the part: that is, increase its action without raising an inflammation, which may be done by the use of mercury. Mercury increases the irritability of a part, and by that means disposes it to act. Fumigations with cinnabar may be applied to stimulate the parts—and fomentations of dried herbs which contain essential oil; poultices, with mustard seed, cumin seed, and the warm gums.

Circumscribed Abscess.

Circumscribed abscesses are more indolent than the diffused; they are generally in glandular parts, the inflammation not extending itself as in healthy abscesses. They are generally slow in suppurating, and are frequently very small.

They are seldom situated in the cellular membrane, and when they are, it is probable that they may be in some small gland, though none is perceptible in that part.

The surrounding parts are usually very little thickened, the cyst containing the matter is generally very thin, and they sympathize scarcely at all with the abscess; for the inflammation acting on a part dissimilar to those that surround it, extends no further; therefore, when a lymphatic gland is inflamed, the surrounding cellular membrane is not affected. But if suppuration should take place, then a new power being added, the surrounding parts will sympathize with it, and inflame as we see in a bubo.

Circumscribed abscesses are very common in lymphatic glands. They sometimes are very large, and will remain for years without suppurating, in an indolent state. These tumors are very different; sometimes they form a cheesy, curdy kind of matter, mixed with serum, and when opened, appear as if the substance of the part was melted down. At other times they are full of this curdy

kind of matter, containing a small quantity of serum in their centre. Others remain in an indolent state for a great length of time, and these, I think, have a tendency to cancer, therefore it is best to remove them entirely.

These swellings frequently occur in the necks of women. I dissected out one of these from the neck of a young woman, which extended deep among the vessels and nerves. I, therefore, was obliged first to dissect the jugular vein, the carotid artery, par vagum, and intercostal nerve, before I could remove the tumor. This patient died, and I think death may have happened from the inflammation of the jugular extending to the heart. The jugular was dissected so bare that it could not support itself, therefore it sloughed away.

Irritable Parts.

Those parts which are naturally irritable are nerves and vital parts. Other parts of the body are frequently irritable, arising from the constitution of the person, or from habit. Irritability of mind is usually accompanied with a similar disposition of the body. Irritability is seldom local, but constitutional.

Sometimes there appears to be a local irritability, for we have a part when injured very irritable, and another part of a similar structure in the same body not irritable, with the same degree of injury. It is just the reverse of indolence. It generally may be known by a quickness to inflame, without any disposition to termination; being very diffused, similar to the erysipelatous inflammation arising from weakness. The irritable inflammation continues increasing, appearing to have no crisis, contrary to the healthy inflammation, which soon terminates either in suppuration or resolution; however, it sometimes may be caused to suppurate, but this is very difficult.

In this inflammation there is a large extravasation, with very little coagulable lymph; it is very much diffused, and often the cellular membrane of the cutis is so loaded with serum, that it puts on the appearance of a part blistered before the cuticle is broke, having the same shining glassy appearance.

This inflammation often occurs at the extremities of the fingers and toes, terminating suddenly, and forming a distinct circular line, between the inflamed and uninfamed part. Many of these inflammations are not to be distinguished from the common, but may be known from the matter. If matter forms, they are certainly not the true erysipelatous inflammation, for in that matter never forms. The erysipelatous inflammation appears to be a specific disease, and not a deviation from other inflammations from some accidental cause.

The cure of parts which are irritable, is much more difficult than when indolent, as it is much easier to excite than assuage. It is much easier to put a man in a passion, than appease him when he is so. All the applications for cure ought to be such as give ease.

It will be better frequently in these cases to use caustics than the knife, to make an opening, for there is much less inflammation after the same degree of injury by caustic, than by a knife; a piece of skin of the size of a crown piece being removed by a cutting instrument, will inflame much more than if removed by caustic. If opium is added in the caustic, it will give less pain. All

the dressings in these cases should be applied cold, and be of the mildest kind; dry lint will sometimes inflame much; the epulotic cerate is a very good application; lapis calimmaris has nothing irritating in its properties. Opium is perhaps the best application to stop ulceration, which in those cases is very frequent. Bark should be given internally, which is particularly useful in removing irritability and restoring health.

ON THE BEST METHOD OF EXAMINING THE AUDITORY APPARATUS.

By P. MENIERE,

PHYSICIAN TO THE ROYAL DEAF AND DUMB INSTITUTION.

In this memoir I propose to examine with care the various means by which the medical man may arrive at a knowledge of the several diseases to which the organ of hearing is subject. Although the structure, position, and form of the ear present many obstacles to our diagnosis of its affections, yet the ignorance of the profession on diseases of the ear seems to depend, not so much on the real difficulties of the subject, as on the little attention which has been bestowed upon it. The great majority of medical men have never explored the meatus externus, or seen the membrana tympani in the living subject; how then can they understand the diseases which may occur in these parts, or still less discover those of the cavity and Eustachian tube?

Considerable experience at the deaf and dumb institution has convinced me, that if the surgeon desire to obtain fixed ideas on any disease of the ear, he must first carefully examine the affected organ, and determine every change that may have taken place in its form and texture. Most treatises on diseases of the ear contain a few scattered directions for examining the meatus, tympanum, cavity, and Eustachian tubes; but these directions, imperfect and incomplete as they are, seem to have been monopolised by the aurists, and neglected almost entirely by medical men.

I thought, therefore, that some benefit might result from collecting together the rules alluded to, and rendering them more complete; describing, in a word, the manner in which our senses should be applied to the study of the structure of the ear. This forms a necessary introduction to a still more delicate study, viz. the appreciation of symptoms.

Lobe of the ear.

The position of this part of the ear renders its examination comparatively easy; we must, however, bestow some attention on the folds of skin, underneath which certain cutaneous lesions may lie concealed. Chronic eczema, lichen, acne, &c., may occasionally attack this part of the ear, and escape our notice. The skin should be carefully examined, and its temperature noted, and we should also open out the folded parts, and see that no cutaneous eruption exists there, for similar affections may exist in the meatus and on the tympanum. In another paper I shall show that the lobe of the ear and integumentary covering of the meatus are subjected to most of the diseases of the skin. When we examine a great number

of individuals, whether they be deaf or hear perfectly well, we shall soon be convinced that the size, form, &c. of the lobe of the ear, exercise very little influence on the sense of hearing.

Meatus externus.

The parts which constitute the external ear, present a great variety of form and dimension; the length of the external meatus, its breadth and degree of inclination, vary, not only according to age, but to individual peculiarities. Sometimes a very remarkable difference will exist between two ears that are equally healthy, although, generally speaking, this want of symmetry depends on disease.

In some cases, the external meatus is sufficiently wide to allow of the tympanum being easily seen, but this is rare; in the great majority it will be necessary to employ an instrument for the purpose of dilating the canal. Authors usually advise us, when introducing the speculum auris, to seize the upper part of the lobe of the ear, and draw it outwards and upwards; in this way we can generally succeed, but in many cases it fails, from the great curve of the meatus, its narrowness, &c.

The orifice of the external meatus sometimes deviates, from a peculiar disposition of the meatus which runs downwards and forwards underneath the condyle of the lower jaw; here the use of a speculum is indispensable; or the antero-posterior diameter of the orifice may be so short, that its edges touch each, and appear like a simple slit, concealed by the tragus.

The external meatus, as we know, is composed of two parts, one external, formed of fibro-cartilage, the other internal, and constituted by an osseous plate of the temporal bone; the former is more or less flexible, and capable of being dilated; the latter not so. The degree of obliquity of the meatus depends on the angle formed by the junction of these two parts; hence it is evident, that to obtain a clear view of the tympanum, we should endeavour to bring these two parts into the same line, so as to let the light fall on the bottom of the meatus. For this purpose I place the patient on a chair, near a window, exposed to a bright light. I dispense with the use of any back piece or pillow, because we should have the power of turning the patient's head towards the rays of light; besides, the patient should have the liberty of withdrawing his head, when the separation of the blades of the speculum causes too much pain. The direct light of the sun is indispensable; English and German aurists employ lamps with reflectors, but the artificial light is less manageable; when we are compelled to have recourse to it, I find that a single candle is preferable; the candle may be held in one hand, and the light reflected from a silver spoon on the sides of the speculum; with a little practice, we soon acquire a knowledge of the required inclination.

The lobe of the ear being drawn upwards and backwards with the left hand, the speculum is passed into the meatus to the depth of about five or six lines, according to the length of the soft portion of the conduit. Here the instrument generally stops, but it may pass on a little further into the osseous portion. In most cases, however, the soft parts form a truncated cone, the top of which corresponds to the edge of the bony canal, and beyond this the instrument cannot ac-

The speculum being thus introduced, we separate its branches gently, so as to expand the membranous canal as widely as possible; having done so, and the light falling on the bottom of the meatus, we now examine this latter part, the tympanum, and the membrane which lines it: as the speculum is gradually withdrawn, we also ascertain the state of the meatus, unfolding it by the pressure of the branches of the instrument. This mode of proceeding can only be employed in cases where the meatus is not conical; for the contraction at the middle part would oppose the complete introduction of the speculum.

In a healthy state, the external moiety of the skin which covers the meatus is lined with cerumen. Most diseases of the ear modify this secretion, which then prevents us from freely examining the state of the parts. Some aurists advise us to inject warm water and remove the cerumen; but it is better to examine the bottom of the ear in the first instance, and without removing this vitiated secretion, in order to ascertain the nature of the matter secreted by the follicles and epidermis. When, however, the quantity or position of the cerumen prevents us from obtaining a fair view of the meatus, we should remove it with caution; in some cases this substance is so solid, that its removal with an instrument occasions severe pain; or the wax may adhere so firmly to the skin, that the epidermis comes away with it, and more or less hæmorrhage ensues from the superficial vessels of the rete mucosum. To remedy these inconveniences, we should first soften the cerumen with some almond or olive oil, when it is easily removed by an injection of warm water; generally speaking, the injections will succeed, and it will seldom be necessary to employ an instrument, by which mechanical injury might be inflicted.

When the cerumen is healthy, we can remove it with a small piece of cotton held by a long, thin forceps; this instrument should be long and straight, and with it we can conveniently ascertain the sensibility of the skin lining the meatus. The same means may, also, be employed in all cases of otorrhœa, but it will be more prudent to inject warm water whenever the canal is narrow and irregular, or the lining membrane deprived of its epidermis, ulcerated, or highly sensitive. In cases of superficial, or deep-seated phlegmon, the introduction of any foreign body will cause acute pain, and hence injections of tepid water are preferable. As we have already mentioned, the sensibility of the membrane lining the meatus presents numerous varieties. Many patients tell us that the inside of the ear is dead; the skin as insensible as a bit of parchment; and as proof, they mention that an instrument may be introduced to the bottom of the meatus, without exciting the slightest sensation; the disease (they say) gradually extended from the orifice of the meatus to the tympanum, and the deafness was increased in proportion to the loss of sensibility in the parts. In a majority of cases this loss of sensibility coincides with more or less complete suspension of the secretion of wax, and sometimes the latter substance loses its natural properties altogether, and becomes white, dry, and friable, or granulated, and of a lamellar appearance. I shall presently point out the value of these different alterations.

The forceps, which guides the small bit of cotton, on being introduced half-way down the

meatus, should be rotated gently on its axis, in order to determine the degree of adherence of the epidermis. When this is done, the epidermis often rolls up or forms a septum across the meatus, which might be mistaken for the tympanum. The surgeon, indeed, might readily fall into an error, unless he were aware that a portion of the meatus was deprived of its epidermis, and at the same time remembered that the physical properties of this accidental membrane are quite different from those of the tympanum. I have seen several cases in which mistakes of the kind now alluded to had been made. Hitherto I have supposed that the meatus is of a natural size, or even slightly enlarged; but in many cases we have an opposite disposition of parts. The most frequent cause of contraction of the meatus is chronic eczema, and under the influence of this affection the walls of the canal often become so tumid as to touch each other, and render the introduction of a speculum impossible. In cases of this kind we must endeavour to dilate the contracted canal by means of small pieces of prepared sponge or strong harp or violoncello strings; occasionally I have succeeded in reducing the tumefaction by lightly cauterising the parts with nitrate of silver.

Erysipelas of the external ear, also, sometimes occasions temporary obstruction of the meatus; but this disappears as the inflammation subsides; the same remark applies to other superficial inflammations of the ear; when the inflammation occupies the bony portion of the canal, it often occasions necrosis, which is very difficult of cure. In all the cases now mentioned, the use of the speculum auris is indispensable, and without it I do not think that we can make a correct diagnosis of most of the diseases which affect the external ear.

Membrana tympani.

The examination of the membrana tympani is of the utmost importance as a basis of diagnosis in diseases of the ear, and hence we cannot become too intimately acquainted with its physical characters in a state of health. We should consider its general form, degree of inclination, concavity, colour, polish, the mode in which the malleus is inserted, &c. All that has been already said about the use of the speculum, applies to the examination of the membrana tympani; but this means alone will not always suffice.

Most of the foreign aurists recommend the use of a small blunt probe to determine the tension, sensibility, &c. of the membrane, and to ascertain its integrity. This mode of exploring the external surface of the membrana tympani is recommended by Kramer, Lincke, Saunders, Pilcher, and others, as being at once very simple and useful. Let us examine this opinion.

Whenever the meatus externus is not too narrow or oblique, (that is, in the majority of cases,) we can easily see two-thirds of the surface of the tympanum and examine its condition, provided we have removed with warm-water injections any matter which may have collected on it. I cannot conceive how the passage of a blunt probe over the surface of the membrane can teach us more than the eye, and in cases where the membrane is concealed altogether from view, I fancy that the instrument can be of little use. In many cases,

where the patient complained of want of sensibility in the ear, I have found that the cotton and forceps were better suited for ascertaining the degree of sensibility than the probe; the application of the latter usually produced a pricking sensation, whilst the cotton merely gave a slight feeling of tickling. In some cases, however, the sensibility of the meatus and tympanum is so acute, even though no inflammation exist, that the slightest contact of any instrument occasions severe pain, and we are compelled to renounce all attempts of this kind.

When the patient has been in the habit of frequently introducing instruments himself, the case is different, and we may then employ the blunt probe; I have sometimes passed it all over the surface of the tympanum without occasioning the slightest sensation of its presence in the ear; this mode of examination, however, enables us to ascertain a fact which is rather connected with affections of the internal ear, and which seems to me destined to throw some light on the diagnosis of diseases of the vestibule and its annexes; I now allude to the curious fact that the power of hearing has been suddenly restored in cases of considerable deafness, by making pressure on the long process of the malleus, which pressure is transmitted along the chain of bones to the foramen ovale. I merely point out this fact, as it seems to me novel, and shall recur to it again.

By simple inspection, then, we can determine the general form, colour, transparency, and thickness of the tympanum. The remarks of the ancients, and of some modern writers on the tension and laxity of the tympanum, have been regarded as pure suppositions since the time of Itard; however, we cannot deny that the membrane may not be drawn inwards by the long process of the malleus, and thus rendered much more concave than natural; or pushed out and made convex by accumulations of mucus, pus, or even air, in the cavity of the tympanum. These circumstances demand all our attention, and are discovered by the greater or less projection of the long process of the malleus and the general form of the meatus at its bottom. Forcible expiration, the mouth and nose being closed, is another mode of exploration which should not be neglected. The air is forced through the Eustachian tube into the cavity of the tympanum, distends the membrana tympani, and thus we obtain much useful information concerning its physical properties. Should the Eustachian tube be obstructed, we must introduce a catheter into it, and blow the air up; but in most cases the patient himself succeeds in forcing the air into the cavity of the tympanum. When the tympanum is perforated, this method enables us to ascertain the lesion with great certainty. We may often examine the external surface of the membrane with the utmost care, and discover no breach of continuity; but when the patient blows his nose, we see the bubbles of air escaping through the membrana tympani with a whistling noise, some pus or mucus is forced through into the external meatus, and no doubt remains on the nature of the lesion; if it be the anterior part of the tympanum which is perforated, the curve of the meatus will prevent us from seeing it, but the whistling noise of the air passing through the opening sufficiently reveals its existence. By this method we obtain in a very rapid and easy manner the knowledge which we require. It frequently happens, in hospital practice, that I

discover perforations of the tympanum in persons just recovered from typhoid fever, or consumptive, by merely holding the nose, and desiring them to make a strong expiration. Having determined the existence of an opening in the membrana tympani, we should endeavour to ascertain its exact position, size, and the quantity of pus or mucus which may pass through it. When the perforation exists at the superior and posterior part of the tympanum, it may be useful to pass a small blunt probe through it, and ascertain the condition of the neighbouring osseous surfaces, but this must be done carefully, lest the ossicula may be deranged.—*Gaz. Med. No. 34.*

SKETCH

OF

THE TREATMENT OF SMALL-POX,

By Senor MIGUEL MUNOZ of Mexico.

(Read by Dr. Black, at the York Meeting of the Provincial Medical and Surgical Association.)

HAVING lately been favoured, through the medium of a friend at Mexico, with some of Dr. Munoz's publications on small-pox, accompanied with some extracts from his book of cases, and also two late numbers of the Journal of the Academy of Medicine of Mexico, which contain a few articles on variola, I have been induced to present a short summary of their contents before this meeting of the association, presuming that some of the therapeutic means adopted by our Mexican brethren in the treatment of the disease may be interesting, if not altogether novel, to British practitioners, who have to treat patients, when afflicted with small-pox, under very different circumstances, as to original race, constitution, habits, modes of living, and also as to climate and temperature.

Dr. Munoz, in his "Simple and Easy Method" of treating those afflicted with epidemic small-pox, when stating the nature, history, symptoms, and cadaveric appearances of the disease, which are not much different from those witnessed in this country, remarks that, in the benign climate of Mexico, the small-pox is not endemic but periodical, with intermissions of about sixteen years at least, and that he has sought for, and inquired in vain, in different places, for the vaccine or variolous pock being met with on the cow, since the establishment of the Spanish government.

After summarily detailing the phenomena of small-pox, both before and after death, Dr. Munoz proceeds to give his explication or pathology of the disease by stating, that it appears probable that the first action of the variolous miasma is of an irritant nature, affecting principally the external and internal surfaces of the body; that from the external surface the irritation is communicated to the nervous system, and to the arterial from both surfaces; that the combined irritations of the skin, lungs, nerves, and arterial system, evidently occasion inflammation of the several surfaces and of the blood, the gradual progress of which at length occasions the eruption, which he holds to be *symptomatic* and not *critical*. The respiratory organs being more susceptible to the irritative action of

the morbid gases, are also the first to feel the contagious miasma of the small-pox, and they are likewise the last to regain their normal state of health, from which arise the precursory symptoms of catarrh, hæmorrhages from the nose—the obscure pneumonia—the disposition to membranous angina—the redness and increased heat of the face, shoulders, and breast, which symptoms, along with the increasing sensibility and irritation of the skin, produce the restlessness, weariness, flying pains, anorexia, thirst, general fever; and finally, the eruption, which prevails most on the face, breast, and arms, from the greater irritation of the skin of these parts, and their proximity to the inflamed mucous surface of the lungs.

The particular form or kind of the small-pox, however varied they may be in different individuals, depends solely on the part of the body which they occupy, and the degree of the inflammatory action of the aeriform virus, without there being any difference in their essentially inflammatory nature, or of their capability of cure by resolution, in the same manner as other common eruptions, as boils, pimples, and pustules—all of which, notwithstanding their exterior difference, we endeavour to cure, in the same manner, namely, by reducing inflammation. For this reason, Dr. Munoz advises the same treatment in these contagious eruptions, whether they be small-pox or not; since the cutaneous phenomena are nothing more than a symptom, which is elicited only once during life in the variola, without the body, nevertheless, being still liable to many other irritations, arising afterwards from variolous poison, in such parts as the lungs and larynx. We have observed, he says, this recurrent irritation in the present epidemic, and there has scarcely been any person, whether vaccinated, or having previously gone through the small-pox, but has suffered angina, bronchial catarrh, with a dry and hard cough, general heat of body, principally towards the face, head, and shoulders, and what is most characteristic of the contagion, is the redness of the skin of those parts surrounding the chest, especially the breast, arising from the respiratory process being injured and impeded by the vitiated atmosphere. Thus we see that the skin, for repeated times, supports the irritation of the variolous atmosphere, though it suffers its virulent effects only once. Not so the lungs and the blood, which possess a more exquisite sensibility, without which they could not perform their important functions, which nature has destined them to do.

Treatment of small-pox.

As soon as the first symptoms manifest themselves, Dr. Munoz advises a copious use of barley decoction, gently acidulated with cream of tartar or lemon, and sweetened with a little white sugar. The adult should take this every hour by small cupfuls, and children equally often by spoonfuls. This beverage serves for food and drink, while the patient may be allowed the free use of pure water besides. When the eruptive fever declares itself, we should bathe the patient morning and night in tepid water, until the primary fever disappears or subsides, which will take place from the fourth to the seventh day, at which period some papulæ make their appearance, generally very benign, in consequence of the efficacy of the tepid baths in reducing the phlogosis of the skin. Dr. Munoz

does not mention the exact temperature of his tepid baths, but from his practical directions in ordering one part of boiling water to be mixed with four of water at ordinary temperature, it may be stated to be from 88 to 92 of Fahrenheit. The duration of each bath to be from one quarter to one half an hour for adults and young people, and from ten to twenty minutes for children at the breast.

These general baths are found the more useful, and indeed absolutely necessary, at this early period, as the skin is the more hot, red, dry, and harsh; since, if it remains moist, pale, soft, and cool, we may omit the tepid baths, and trust to other remedies.

In the first stage, or that of incubation, the general tepid baths have proved so successful, that Dr. Munoz had not seen a single case in which they failed to effect the total resolution of the pox, even when all the symptoms of the confluent disease threatened to explode, of which beneficial effects there are in Mexico, he says, many witnesses, highly gratified for the recoveries which they received from their use. These baths are highly indicated and necessary, until the general fever, the pain of the head and throat, and the increased heat of the chest, disappear. This will take place in about six or seven days, after which the baths may cease to be daily given; only they may be repeated from time to time, according to the more or less phlogistic temperament of the patient, and the symptoms of irritation which may remain.

At night it is proper to exhibit a *lavement* of decoction of linseed and mallows, or of (atole) Indian corn ground into a pulp, in tepid water, after being softened by lime water. From the third to the fourth day, at which time the papulæ begin to appear, we must apply to the breast and right hypochondrium, each morning and night, cataplasms, at the heat of the body, made of *tianguis pepella* or lettuce, and a little purslain bruised raw, and placed between two warm linen cloths. If there be much fever excited from an increase of the eruption, and the face and throat swell with pain and difficulty of swallowing, leeches are to be applied to the neck and round the breast, and allowed to extract six to eight ounces of blood from adults, and three or four ounces from children. These affections become sometimes very troublesome, when the patient is not attended to in the first stage of resolution. Tepid syringing of the throat with mallows or linseed tea is useful, and warm cataplasms may be applied outwardly.

If there is no diarrhœa nor regular stools, a lavement to be given at night and in the morning—if diarrhœa, we omit the enema, and use no cream of tartar, but only plain barley-water without sugar. The patient may, however, keep out of bed by day, being lightly clothed, and not heating himself under any pretext. His room should be kept clean, and the door open, thereby admitting a free current of air during the day. The light, especially that of the sun, should be moderated, since it irritates and heats the body, and chiefly the eyes. Not more than one patient should, if possible, be placed in one room, that the contagion may be kept as diluted as possible. The linen should be changed, if possible, every morning, as the body is then cooler and less sensible to any change.

If the pustules have come forward and matured, it will be proper to reduce the baths to tepid for

mentations of the palms of the hands and soles of the feet, and to avoid rupturing or destroying the pustules when confluent, as the denuded or abraded parts suffer much irritation from contact with the atmosphere. As the pustules arrive at maturity, we may empty them by the fine points of small scissors, while the matter that exudes may be gently wiped away with fine white lint soaked in cold salad oil; and this operation may be repeated every morning, as long as necessary.

By this simple method we get over the first and second stage, viz. the eruption and suppuration, in each of which periods we must attend to the prevention of evil in the succeeding, since it is difficult to repair what is lost or omitted in any of the stages, and especially if the case should turn out very severe.

I have said nothing about treating the eyes in the course of the complaint, since, in my opinion, nothing is wanted. Water of natural coldness has the effect of blanching and opening the little pustules on the tarsi, and making them shed their contents over the delicate surface of the eyes. On the contrary, they do well without touching them, since they are not of themselves fitted to form pustules, and the dry and crusty ones of the eyelids cannot injure them by their proximity. From the twelfth to the fourteenth day, when the pustules begin to desiccate, the only useful remedy is free air, which alone dries and encrusts the pustules, without the inconvenience of those medicines which are often advised for this purpose.

When the desiccation has proceeded a little, we may entirely suspend the local as well as the general baths, and also the cataplasms. We then give a discretionary use of barley-water with sugar, but without any acid; the diet may be increased by pure milk and *atole*, with fruit, as oranges, apples, and pears, with sweet potatoes. From the fifteenth day, animal broth or soup, or rice well boiled, may be given, also milk and rice milk. Children at this stage may walk about, if there is no particular disorder to hinder them. When the pustules adhere together, and during desiccation form thick and broad crusts which are difficult to be thrown off, they are apt to corrode the skin and produce ulcerations and unsightly cicatrices. In these cases we may use the cerate of Galen, or in place of it a little cake of butter, either of which to be applied morning and evening, until the crusts fall off, after which, if any ulcerations remain, they are easily cicatrized.

From the twentieth to the twenty-fifth day, the health is generally restored, and the patient may return to his usual diet and mode of life, taking care not to expose himself in any manner to the strong irritative impressions of the variolous miasma to which he is liable for some time afterwards.

Such is Dr. Munoz's method of treating the disease of small-pox. I shall now give an extract of four cases out of sixteen, which he has detailed at length in his case-book, as illustrative of his practice.

CASE I.—The first case was that of Rosa Vasquez, aged thirty, not vaccinated, being on her admission eight days under the epidemic fever, with a confluent eruption about to enter upon the period of suppuration. Pulse small and quick; burning heat over the whole body, but especially over the arms, face, and breast, all of which parts

were intensely red, modified by the dirty and dusky colour of the skin, which is naturally gray; complains of chilliness; the papule are numerous and aggregated, without much elevation of the surface; the head is intensely hot in comparison with the rest of the body; throat painful from membranous angina; tongue thick and swollen, gray and mucous, with red margins—some thirst; no appetite; bowels confined, and complains much of wandering pains.

Ordered a tepid bath to the whole body, and to be repeated at midnight, with sweetened decoction of barley every hour, and a little *atole* (ground maize) at meal hours. A mattress of *bin* and linen sheets, free air, and the door to be kept open.

2nd day.—A temporary resolution of the general eruption took place after the bath, as if by a miracle, and remarkable decrease of the general redness and heat yet continues. Pain and uneasiness less; pulse small and regular; pulmonary and cutaneous transpiration natural; bowels were opened naturally with two liquid evacuations.

Ordered three general tepid baths during the day; drink, &c. as before.

7 P.M.—The febrile symptoms have exacerbated; as heat of body and velocity of pulse; skin more red, with appearance of more eruption, without any swelling; small petechiæ or spots only, like flea-bites, appearing, the colour and size of which vary much over the skin, but are larger and more numerous on the breast and sides. Another liquid and bilious motion; complains still of headache and general pains, with chilliness.

A refrigerant cataplasm to the breast and hypochondria, and a small quantity of cool *atole*, (ground maize.)

3rd day.—No general fever, pulse small and soft, redness moderate, and unequal, existing partially on the upper parts of the body; the rest cool; respiration laborious, with some moaning, occasioned by inflammation of the left ear and throat. Spots are fewer and less in size, but all preserving an obscure redness. Tongue a little inflamed; had a serous and bilious motion early in the morning. Urine very high coloured.

Three general tepid baths, and in addition to food, drink, and cataplasms as before, the throat and ear to be syringed with tepid barley-water.

4th day.—Almost all the petechial spots have disappeared; heat of body and frequency of pulse less. Complains of pain over the stomach and chest, with a disagreeable sensation of weight. Cough dry, frequent, and irritable, with some bloody sputa. In short, her complaint to-day appears to be an obscure pneumonia combined with gastritis.

Two general tepid baths, and to continue the rest as yesterday.

11 A.M.—Respiration painful and difficult, heat of the body increased, with coldness of the extremities. Pulse small, quick, and concentrated. Petechiæ dark brown towards the bend of the arms, on the sides, breast, and shoulders. Tongue thickened and moulded to the teeth, white, and loaded to the base, and red at tip and margins. Another serous and bilious motion; sputa mucous and sanguinolent; extreme immobility and sense of heaviness over the body. All to be continued as before prescribed.

5th day.—Heat remaining in the breast and head, with a morbid coldness in the hands and

legs. Pulse very small, and nearly imperceptible. The dark-brown petechiæ small and fewer. Respiration painful and fatiguing. Dry cough, with pain in the chest and head. Sputa scanty and mucous.—Tongue moist, but edges less red and swollen. A liquid motion; body more easily moved, and is less oppressed than yesterday.

A general tepid bath morning and noon; cold *atole* from time to time; refrigerant cataplasms to breast and hypochondria.

6th day.—Heat of the body has gradually subsided; is now general and moist. Pulse is soft and fuller. Petechiæ still fewer and segregated; pain only in the ears. Tongue moist and mucous; bowels open.

Continue remedies.

7th day.—Heat moderate and diffused. Pulse nearly natural, petechiæ almost gone, no pain nor cough. Tongue moist, less red, and more flexible.

Continue remedies.

8th day.—No fever, nor redness, nor petechiæ on any part of the body. No pain. Respiration, digestion, and alvine functions natural. Sleep quiet; appetite increases, and the muscular and articular movements easy. There only remains for the patient to take care of a fair convalescence, that she might exhibit, to all interested, an example of the happy result of the method of curing, by *resolution*, the small-pox, after seven days' treatment.

CASE II.—Maria Ant. Martinez, æt. 12, said not to have been vaccinated, was received on the fourth day of the eruptive fever, with the suppurative rigor upon her. The papulæ are formed on the face, breast, and arms. Much nausea and vomiting. Tongue white, edges red. Headache, with wandering pains. Weariness and restlessness, along with much anguish, anorexia, and thirst. Skin rough and unequal.

Ordered—A general tepid bath for half an hour, and to be repeated at noon. Barley decoction every hour, and *atole* in small quantities at stated times. Bath to be repeated at night. To have plain water *ad libitum*. A mattress of bin, linen sheets, free air, and open doors.

2d day.—General fever less. Pulse small, but regular. Tongue red, and a mucous coating; no desire for food nor drink. Is adverse to be moved, and desirous to cover the face in the bed-clothes. Face, breast, and arms very red; pustules increased in size and numbers; bowels costive, urine natural.

A tepid bath as before, morning, noon, and night, &c.

3d day.—After some increase of heat and velocity of the pulse yesterday, there is now a notable subsidence of fever—more liveliness—some appetite—inclination to be moved. The eruption, without increasing, continues favourable.

A tepid affusion first to the head, then a general bath at 7 A.M., 1 P.M., and at night. Drink and diet as before.

4th day.—The body is now cooler, after an increase of heat in the upper parts yesterday afternoon. Suppuration in some of the pustules, and resolution in others.

A local tepid bath to the head for a quarter of an hour, then a general one for another quarter. The same to be repeated at noon and at night. Food and drink as before, and a lavement of barley-water.

5th day.—Heat and itchiness of skin. Papulæ have increased on the arms and face, with augmented heat, legs coldish, much restlessness and excitability; pustules hot; throat stiff; bowels confined; urine natural. Tongue red, with ulcerations on its edges; some thirst.

A general tepid bath three times a day. A refrigerant cataplasm to the neck; the rest as before.

6th day.—The pustules general over all the body, as well as on the arms and head. Heat of skin increased. Pulse quick. Mucous ulcerations of the lips, tongue, and palate. Much sickness and depression, with a desire to remain undisturbed, with the head covered up in bed. Bowels open, urine natural.

Baths as before, first to the head for a quarter of an hour, then generally for another quarter. Throat to be frequently syringed with barley-water. Another cataplasm, and lavement to be repeated.

7th day.—Heat moderated. Pulse frequent and soft. Pustules pale, but chiefly so on the face. Mouth and throat sensibly relieved.

Ordered—The same as yesterday, the patient may rise from her bed.

8th day.—Some of the pustules subsiding, others swelling, and part are hardening and desiccating. Mouth and throat better, heat of body less, but unequal. Some appetite—little thirst—no pain.

Continue treatment.

9th day.—No fever nor areolar inflammation. Desiccation going on without ulceration or corrosive suppuration. No heat nor pain, nor restlessness. Some hunger with thirst.

A general tepid bath only for a quarter of an hour. The rest as before.

10th day.—Separation of some of the crusts from the face, through the patient's indiscretion. Skin smooth in these parts, from the blandness of the variolous matter. Signs of convalescence.

One bath; milk, *atole*, barley-water, and omit the syringing.

11th day.—Desiccation nearly completed, there only remaining some pustules on the legs to be dried up. No fever, nor heat, nor itchings of the skin, so common in those otherwise treated.

A short bath only. Diet and drink as before.

12th day.—General desiccation has finished, without heat, redness, or ulcerations in any part of the body. Convalescent.

To be removed to the convalescent ward of the Lazaretto for fuller diet, and that she may be seen by all interested, as an example of the mode of treatment by resolution in twelve days.

CASE III.—Maria Florentina de los Angeles, aged 10, not vaccinated; has had fever for two days. There are frontal headache, heat and redness on the arms, breast, and cheeks. Tongue clean and red. Appetite impaired. Thirst. Pulse full, soft, and quick. Bowels confined, urine natural.

A general tepid bath three times a day. Barley water, *atole*, and pure water, as in last case. Linen sheets, free air, open door.

2d day.—The febrile symptoms were all remarkably relieved last evening, and they continued subdued, only a little more heat than natural; some perspiration; slight headache.

Three general baths, and diet and drink as yesterday.

3d day.—Fever visibly less. Headache easier.

Redness of the skin persistent on the arms and breast, which are rather hot, while there is an unpleasant coldness in the legs. Appetite better. No thirst; urine clear, and belly confined.

Three baths in the day as before. Continue the rest.

4th day.—Fever subsides, and there is every appearance of the resolution of the disease. No pain. Appetite good. Tongue clean, rosy; without thirst. Urine natural. Some general perspiration.

Only one short bath, and a double ration of atole.

5th day.—Redness of the breast has disappeared; feels cool, and is lively. Appetite increases, and she desires to walk about.

6th day.—The resolution of the variolous inflammation is evident, and she promises a favourable recovery.

To have full diet, and remitted for inspection, as another example of treating the variola beneficially by resolution in six days.

CASE IV.—Jose de Jesus Arismendi, aged two and a half years, not vaccinated. Has had fever for two days. Pain of head and lethargy. There is much redness of the skin, especially on the arms, breast, and face. Tongue dirty, mucous, and edges red. Has flying pains, and is very restless. Mucous discharge from the nares, and hot tears from the eyes; moans much, and is thirsty.

A general tepid bath directly, and repeated at noon and night. Diet, drink, &c., as in former cases.

2d day.—More heat and redness of the skin. Appearance of some papulæ dispersed over the body.

Tepid baths, and the rest as yesterday.

3d day.—The papulæ proceed, and are more numerous, especially on the arms and face, without any general fever.

One tepid bath; the rest as before.

4th day.—Heat abated since last night's exacerbation. Pulse small and concentrated. Skin not very red. Some of the vesicles fuller. More liveliness, and less thirst.

Continue treatment.

5th day.—The greater number of the vesicles begin to coalesce, and there are some marks of suppuration in a few on the face. Has no apparent pain. Discharge from the nose and eyes ceased. Heat moderate; feet cold; thirst less. Pulse nearly as before.

A bath, and other remedies as before.

6th day.—Some swelling of the face; suppuration in some patches of the pustules, coagulation in others, and resolution of many. Lachrymation returned.

Continue treatment.

7th day.—Tongue and lips more swelled; pustules more defined from the resolution of the inter-pustular inflammation. Inspissation of many without suppuration, hardening in others, and suppuration proceeding in a few.

8th day.—Many of the pustules have desiccated and hardened much, becoming also flatter. Salivation and lachrymation have diminished. Infantile vigour returns. Throat and mouth better.

Two tepid baths, the rest as formerly.

9th day.—Pustules more firm and hardened. Appetite and cheerfulness return. Eyes and throat nearly well.

10th day.—Desiccation complete—leaving hard, smooth, and defined scabs, without any purulent crusts, ulcers, or tumors. Convalescent.

Such are a few examples of the mode in which M. Munoz treats small-pox, especially with reference to the use of tepid bathing; and for the degree of estimation in which his practice is held and been put in force by his brethren in Mexico, I shall make two or three extracts from Papers on Variola, published in the "Periodico del Academia de Medicina" for the months of October and November last year.

Senor Alfano, a medical surgeon, in speaking of the treatment of the disease, says—"Bathing, though at times recommended for the small-pox, has only been put in practice by D. Miguel Munoz, who, in the epidemic of 1829, used the baths extensively under different forms, and at various temperatures, among the poor patients. The employment of this agent was then reckoned an absurdity, not only by the common people, who still have a repugnance to it in certain diseases, but also by medical men. As far as they have been used in a general manner, they have given rise to several questions, which may be reduced to two principal ones. 1. Is bathing useful in the small-pox? 2. Does the cold bath hinder the eruption, and can it be so impeded without danger to the individual? To resolve these questions, it is necessary to know the action of bathing according to the temperature, and thence to deduce its exact effects; for this purpose we must have recourse to the only fountains of truth, experience and reason. The importance of bathing in all the phlegmasiæ is generally acknowledged, whatever may be the cause which has produced them; but baths should not be applied at indifferent temperatures, and this is the important matter to decide. With the exception of the extremes of temperature to which man is equally sensible over the whole world, in the intermediate conditions, the temperature ought to be proportioned to the individual. A bath of 73 deg. Fah. will be for some cool and for others warm, and one of 56 deg. or 66 deg., does not produce the same effects in all climates, nor in a tin bath, as in a river or a cistern. All these considerations are necessary, before applying baths as a remedy; and for the better examination of the question, let us see what is the effect of a cold bath upon the animal economy. All the phenomena attending a bath below the temperature of 56 deg., or even 66 deg., unequivocally indicate a temporary congestion of the fluids towards the internal viscera. According to some physicians, both the circulation and respiration are debilitated, since it is observed that the movements of the heart are less strong, and the respiration is accelerated; some believe that this last effect is owing to the exercise which the patient makes within the bath. Reason is so far opposed to the use of the cold bath in small-pox; for if, in health, congestions are easily formed from the cold bath, in the internal viscera, with more reason will they be produced in patients under this disease, when to a disposition to congestions, there is added the repulsion of phlegmasia of the skin by so energetic an agent. Again, on this point, experience does not assist me, for I have never used the cold baths in small-pox, though we ought not to forget that lotions of cold water to the eyes prevent the eruption of the pustules

there, and I have remarked that they not only do not break out on the eyes, but on the other parts of the face, where the cold water has accidentally run. Would the same take place from a general bath?

D. Miguel Munoz says, he has used in his practice the cool bath. To me this expression is vague, for, taken in its hygienic strictness, it means water at a temperature of 66 deg. to 79 deg. Fah. In such a bath of the latter temperature, there is felt, on first entering, a slight chilliness by those who have not been in the habit of using it, or if they immerse themselves by slow degrees; but this sensation quickly goes off, and an agreeable one succeeds, in proportion to the extent of the previous heat and febrile excitement. The skin becomes soft, the circulation for the instant is accelerated, but the pulse soon subsides, and a comfortable state of calmness is felt. No injury can result from the employment of such baths. Reason and experience agree on this point, and there are few physicians but have used them in the late epidemic. Along with saline purgatives, when necessary, and a moderated diet, I have used the cool baths from the beginning to the end of the disease, exhibiting them once or twice a day, according to the circumstances of the patient. Some authors advise them only in the latter period of the disease, to promote the softness of the skin, forbidding them in the first and second stages, in which periods I think them the more necessary. In the first stage they moderate very evidently the humoral movement which is tending towards the skin, and they ameliorate while they accelerate the eruption. In the second, they subdue or lessen the inflammation which attends the eruption, with more promptitude than naturally takes place; and they preserve, moreover, the body in that state of cleanliness which is no less necessary. During the epidemic, the sick, from being prejudiced against the baths, become very favourable to them from witnessing their good effect in so many instances.

In a little girl, only fifteen days old, and in whom the pox was very confluent, I used nothing else but the bath (*fresco*) twice or thrice daily. In the latter stages, in all cases to keep the bowels free, I have only used emollient lavements. In two cases where I used the nitrate of silver to prevent the eruption from coming forward, I found that it extended and proceeded with more rapidity on those parts than elsewhere.

The second extract is from a statistical and therapeutical paper on the disease, by Manuel Romera, medical surgeon. He gives three tables containing the return of 159 afflicted with small-pox, whose ages varied from fourteen days to twenty-three years; of these only 15 were vaccinated, 68 had confluent pox, 139 were cured, and 20 died; being about 1·7 of the recovered: 128 of them were treated by the tepid bath, according to Munoz's plan.

Senor Romera also says, "I have not been able to assure myself of the *absolute resolution* of the small-pox by the baths, but I observed that those patients who began to use them as soon as they were attacked by the primary symptoms, only underwent the variolous fever, or the pustules proved to be very few and small, so that they recovered more speedily, and none of these died." "I ought to mention," he says, "that though I have proposed to follow the same curative method

among private patients and those in the public charities, yet I could not ensure the effect of the baths in the former class; for there remained in one family or another some prejudice against this therapeutical mode of treatment, notwithstanding its general and happy results in this epidemic. I, however, fervently hope that the regulated use of this powerful agent, in all inflammatory and eruptive diseases, will be found, in future, to be one of our principal resources against such complaints."

Senor Romera also mentions that Professor Munoz and he, being desirous to ascertain whether the variolous virus would acquire the vaccine properties, by being inoculated on the cow, as Mr. Ceely has asserted to have observed many times at Aylesbury, they inoculated, on the 19th of April, 1840, a young heifer, under all the conditions which were recommended, but they could not observe that any effect took place from inoculations that were made in the course of fifteen days, notwithstanding all their care in inserting and selecting the virus which they used.

The *Third Extract* is from another Statistical and Medical Report on Small-pox, by D. Ladislao Pascua of Mexico, who, from his report, seems to have had medical charge of the poorest and most dirty districts of Mexico. His three tables contain the entries and results of 163 persons afflicted with the disease, from birth to the age of thirteen years. Of these 163, there recovered 123, and 40 died—being about 1 to 3·3. 140 were cases of confluent pox, and various grave diseases, as typhus and pneumonia affected many of them at the same time.

As to treatment, Dr. Pascua says,—"The treatment which I have adopted for all the patients has consisted in tepid baths, refrigerating drinks, emollient lavements, or a few doses of a drachm to half an ounce of cream of tartar; and when there was much costiveness, substituting proportional doses of sulphate of soda or magnesia. Among the first patients whom I attended at the hospital, I used general blood-letting, one while for constitutional action, at another for pneumonia, but the issue in all was fatal. In all I ordered injections of the throat, with vinegar and water, and emollient cataplasms to the neck: I have also practised the pricking the pustules with a needle or fine scissors, and pressing them with soft linen; and I have thus effected to preserve the skin afterwards smooth, and without any pits or marks from the disease."

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In the endeavour to reduce the mortality from insanity, much must necessarily depend upon the general management of those suffering from this disease. Where this is calculated to produce or

increase irritation, or to protract the duration of the paroxysm, or where it is otherwise inefficient or injurious, the effect must be prejudicial. Various remedial agents have been highly extolled as of great efficacy in subduing the excitement which marks the paroxysm of some of the more violent forms of mania. Depletory measures, antimonials, digitalis, the douche, the rotatory swing, have each in their turn been employed, and some of them with the double intention of allaying excitement, and at the same time of acting upon the fears of the patient. It should, however, never be forgotten by those who are entrusted with the care of the insane, that the most raging delirium exhibited by these patients is rarely connected with active inflammation, and that their physical powers are soon prostrated under the influence of depressing causes. Many of the cases, which in their earlier, that is, in their most curable stage, fall under the care of the ordinary practitioner, are too often irremediably injured by an injudicious use of active measures, while there can be little question but that the treatment of the insane, in the earlier stages of the disease, and during the paroxysms, was at one period far too energetic. Much mischief has in this manner resulted, as well in establishments set apart for the reception of the insane as in private practice, and the termination has too often been the rapid sinking of the patient on the one hand, or the rendering of the mental aberration permanent on the other. In this respect, however, great improvements have been introduced, and it is in the general management of persons of unsound mind, in the due regulation of the moral treatment, and in the adoption of such coercive measures as may be necessary, that the application of just principles is most needed.

In all well-conducted asylums, where the number of the attendants is duly proportioned to that of the patients, those implements of cruelty, by which the condition of the insane was at one time rendered so completely wretched, are now happily dispensed with. The principle is becoming generally recognised, that these institutions are neither prisons nor penal establishments, but simply hospitals for a peculiar class of patients, for whom special modes of treatment become necessary. The management of the insane in such institutions should in no respect differ from that of the sufferers from other diseases, received into hospitals, infirmaries, or other medical establishments, further than the special indications of the disease require. In the acute stages, or during the paroxysms of insanity, such remedial measures must be had recourse to as experience has shown to be beneficial in moderating and calming the state of

excitement which exists. It should, however, be laid down as an essential principle, that no method of treatment, curative or coercive, should be adopted as a means of punishment for the want of control over himself evinced by the patient under such circumstances.

In the treatment of the delirium of fever, or meningitis, the use of cold applications to the head, of a blister to the nape of the neck, or the employment of any means of restraint as a punishment for the violence of the patient, would be looked upon as equally cruel and absurd. The delirium of the insane is entitled to the same consideration; and similar care and watchfulness, together with judicious attempts at soothing and composing the mental disturbance, should be combined with the necessary remedial measures, as well in the one case as in the other.

The question as to how far restraint, or certain methods of restraint, may be necessary for the due management of the insane, is, after all, one of degree, since the very placing of an individual of unsound mind under that inspection which is required both for his own safety and for that of others, is in itself a measure of restraint. His personal liberty is so far interfered with, and to the same degree his feelings are liable to become outraged. Confinement within the walls of an asylum is therefore in itself a restraint, and any addition to this confinement, whether by manacles or fetters, by the strait-waistcoat, bandages, or straps, or by seclusion, in so far as these means are adopted for security, or as remedial agents, is merely the carrying out of the same principle in different degrees and by different methods. The great and leading feature in the improvements in the management of the insane, introduced by Pinel and Esquirol, is the endeavour to reduce these restraints to the utmost limits which appear compatible with the safety of the patient, and of those who come in contact with him; and the attempt which is now making to substitute still milder forms of restraint for the straps and bandages employed, in the place of chains and other implements of torture, cannot but engage the earnest attention of all who are interested in the subject. This attempt is nothing more than an extension of the principles upon which all the best conducted asylums are now managed. It is simply a proposal to adopt in all cases such methods of restraint, where restraint unfortunately becomes necessary, as are considered to be least likely to prove irritating to the person subjected to them. The conductor of one asylum looks upon the strait-waistcoat, leathern straps, and bandages, as more efficient and safer for the violent patient; the manager of another thinks that these methods

exercise an injurious moral influence upon the patient, and recommends temporary seclusion, that is, closer confinement than ordinary, as a substitute. There is here no difference in principle, provided always that neither in the one case nor in the other is the peculiar restraint had recourse to, adopted as a means of punishment for an offence committed, or held out as a threat to induce obedience. The question then becomes one simply for investigation as matter of pure observation; and if it can be shown that the system of seclusion has less tendency to irritate or work upon the feelings of those subjected to it, than the strait-waistcoat or the strap, even though a larger number of intelligent assistants may be necessary, no humane and enlightened superintendent of an asylum for the insane will hesitate to make the change.

The observations on seclusion made by Dr. Conolly, in the Fifty-fifth Report of the Hanwell Asylum, are deserving of the highest consideration; and though we cannot but look upon the method recommended by him, not so much as being a substitute for restraint as another form of restraint, yet as affording a milder and less irritating mode of using that force upon the patient which it is unhappily a matter of necessity to employ, it should at any rate receive a careful trial of its effects, before it is condemned as useless, or stigmatized as visionary. One mode in which this method seems likely to prove less irritating, and consequently less injurious to the insane, is, that it admits of being employed as a purely curative measure in those cases of uncontrollable excitement in which it becomes necessary to have recourse to it. The patient may himself be made to understand, what is indeed the fact, that it is with a view to his own tranquillity and benefit that he is for a time removed from the usual external means of excitement, to which, under ordinary circumstances, he is exposed. It is in this light that Dr. Conolly wishes to regard this measure. "By seclusion," he observes, "is meant temporary protection of the maniac from the ordinary stimuli acting upon the senses in the refractory wards of a lunatic asylum. He is abstracted from noise; from the spectacle of a crowd of lunatics; from meeting those who are almost as violent as himself; and from every object likely to add to his irritation."

He then goes on to remark, "But the mode in which seclusion is effected is also important to securing the benefits of it. If resorted to with violence, if accompanied with expressions of anger or contempt, if stigmatized as a punishment, and if followed by neglect, it may produce all the evil moral effects of restraint itself. If injudiciously

persevered in in very recent cases, it exasperates instead of calming. The patient requires freedom of action; is relieved by strong muscular exercise; and this should be provided for by such a subdivision of airing-courts as would leave one for the occasional use of a single patient, at least for a few hours in the day. After being indulged in active voluntary exercise for an hour, two hours, or such period as may seem desirable, the patient should be secluded. Calmness and sleep will sometimes follow; or sufficient tranquillity to enable the attendants and officers to talk to the patients with effect." With patients unwilling to submit to the measure, it is, however, obvious that force must be occasionally used; and to this extent, at least, seclusion must always be considered as restrictive and coercive. It is only necessary to read Dr. Conolly's instructions as to the mode of effecting the seclusion of a violent patient, to be convinced of this.

"Three or four attendants, possessed of courage and good temper, should surround him; and telling him he would be much better if quiet, and in his own room, should endeavour, by gentle occasional efforts, to induce him to walk into it. It will sometimes be found, that although he protests loudly against the measure, his steps gradually proceed in the direction required. At the same time, steadiness and strength may be required to prevent his retrograding; but well-qualified attendants will not, on this account, resort to violence. If he strikes or kicks them, they must, of course, effect their purpose as speedily as possible, and with steadiness, and even with force; but always without passion." It is not, then, so much as a substitute for restraint as a milder and less irritating form of restraint, and as one which may be had recourse to on purely curative principles, that seclusion appears to us likely to prove advantageous. The benefits derived from it are spoken of by Dr. Conolly in decided terms. A violent patient, when placed in his room in the manner before stated, "is not unfrequently found to become quiet; or if he continues to talk loudly, it is not for a long period. In all probability he will soon lie down upon his bed and go to sleep. If he continues violent, he is at all events out of harm's way. He will very seldom attempt to hurt himself, and he can hurt no one else. Many patients liable to periodical excitement, and especially females, are far more comfortable if kept in seclusion during the period of their excitement.

"There are many patients subject to paroxysms of excitement of about a week's duration, who, of their own accord, will keep in their rooms at such a time, and who, although the door is not locked, will seldom offer to come out. There were no

patients more injured by the imposition of restraint than these; the character of some of them, even during their most excited state, is improved since its discontinuance; and, at other times, instead of being a terror to the attendants and to the officers, they are among the most affectionate and grateful patients in the house."

The observations made upon this subject in the statistical report of the Retreat are worthy of attention. It is stated that coercion, during a refractory or violent state, or, in other words, the personal or membral restraint of the insane, has, from a very early period, been regarded in that institution, more or less, in the light of a necessary evil, and it has been one of the objects of the managers to resort to it as seldom as practicable. Hitherto the officers of the Retreat have not thought it right to dispense altogether with the use of all mild and protecting means of personal restraint, believing that, independently of consideration for the safety of the attendant, they may, in some cases, be regarded as the least irritating, and therefore the kindest method of control. The attempt now making by Dr. Conolly, at Hanwell, must be looked upon in the light of an experiment conducted on an enlarged scale, to determine this point, and, as it appears to us from the evidence hitherto adduced, is likely to prove successful. While the trial deserves every encouragement, its progress should be closely scrutinized and watched, and the effects of the whole system pursued in the Hanwell Asylum, both on the comfort of the patients, and on the curability, the duration, and mortality of the disease, accurately compared with what is observed in other asylums in which patients of the same class are treated.

REVIEW.

Pharmaceutical Transactions. No. III.

THE industry and activity of Mr. Jacob Bell have infused a considerable share of life and vigour into this work, and we trust that the time is not far distant when we shall possess, under his superintendence, a journal of pharmacy fully equal to any publication of the same kind in France or Germany.

The number of the *Pharmaceutical Transactions* now before us contains original communications from Professor A. T. Thomson, Mr. Squire, Mr. Alsop, and Mr. Jacob Bell, with reports of the proceedings of the Pharmaceutical Society, and other interesting information.

Professor A. T. Thomson's paper contains a description of a modification of Marsh's instru-

ment for detecting arsenic. The Professor of University College must have calculated on a lamentable ignorance of foreign medical literature amongst his auditors, when he presented this instrument as a novel one, or as an *original* conception. It is exactly similar (if we except the ground stopper, *a*.) to the modification of MM. Kœppelin and Kampmann of Colemar, and differs but little from the instrument proposed by M. Chevallier in the year 1839. Professor Thomson, however, has omitted to mention a very essential circumstance, viz. the necessity of placing a portion of asbestos, or cotton, in the elongated tube, for the purpose of arresting any drops of the liquid which may be carried along with the gas; unless some precautionary measure of this kind be adopted, the experimenter runs the risk of obtaining stains of oxysulphuret of zinc, which frequently resemble in appearance the true arsenical spots.

Mr. Squire gives, in a short paper, some practical remarks on the best method of preserving fresh expressed juices in their original state, and of uniform strength. The first experiments made by Mr. Squire led him to think that the properties of the juice might be retained, by adding one measure of spirit of wine to three measures of the fresh juice; but when this mixture was exposed to the same variations of temperature with our tinctures in daily use, it was found to have undergone a perceptible change; Mr. Squire, therefore, increased the quantity of spirit of wine in the proportion of one measure of spirit to two of juice, and this change answered the desired object.

The time at which the plant should be gathered, according to Mr. Squire's experience, is when more than half the flowers are blown. In biennial plants, as henbane, digitalis, &c., we should be particular to use only the leaves from the stalks of the matured plant. The leaves from a first year's plant are inferior in quality, and furnish less juice, although the extract is of a fine colour.

Mr. Jacob Bell communicates some observations on the use of distilled water of bitter almonds, which is a saturated solution of oil of bitter almonds in water. The oil is a compound of benzule and hydrogen, one equivalent of each.

Mr. Bell observes that the powerful effects of hydrocyanic acid, and the danger which is likely to result from inaccuracy in the dose, render uniformity in its strength of the highest importance, whilst its volatility and liability to decomposition occasion considerable difficulty in attaining this object.

Every time the stopper is removed from a bottle containing it, a portion of the real acid escapes,

and although the quantity which is liberated at each time may be unappreciable, it is clear that when a bottle, containing an ounce or two, is nearly emptied in the usual routine of dispensing, the remaining portion must be considerably reduced in strength. This may serve to explain a circumstance which has occasionally excited the surprise of medical men, that after having daily increased the dose, with careful attention, to the effects up to a certain point, a very slight accession, or even a repetition of the last dose, has been known to produce violent and alarming symptoms. It has, in several instances, been discovered on investigation, that the last mixture was prepared from a fresh bottle of acid, which had not lost strength by exposure, while the former acid, by becoming gradually weaker, had misled the practitioner in estimating its effects. The extreme difficulty of guarding against this inconvenience, especially where the demand is not sufficient to ensure a rapid consumption, is a subject of much importance. Dr. A. T. Thomson has proposed that hydrocyanic acid should be kept in four or six ounce bottles, diluted with water in the proportion of a drop or two to the ounce, by which means a fresh bottle would be opened for almost every prescription. This plan might answer the purpose when water is the vehicle ordered; but when this is not the case, we have no alternative but to keep the acid of the medical strength, and to dispense it from a very small bottle.

The hydrocyanic acid of Scheele contains five per cent., by weight, of real acid; that of the pharmacopoeia is about two-fifths of the above strength. This fact unfortunately is not generally known in the profession, and Scheele's acid, having been a long time taken as the standard, is habitually prescribed by many practitioners. When the word "Scheele" is not inserted in the prescription, and the acid of the Pharmacopoeia is employed, the patient receives only two-fifths of the dose intended, and the reputation of the dispenser is injured by the inefficacy of the medicine. Several instances might be mentioned in which chemists have thus undeservedly been accused of using "hydrocyanic acid which was good for nothing."

As many practitioners almost entirely avoid prescribing hydrocyanic acid, on account of the difficulty of preserving it of a uniform strength, and as others are in the habit of using the oil of bitter almonds as a substitute, the comparative merits of the two remedies claim our attention.

Treatment of the Insane.

WE have received a pamphlet recently published by Miss Sarah Newell, entitled "Facts connected with the treatment of Insanity in St. Luke's Hospital," &c. Some of the facts contained in this publication show that whatever improvements may have taken place in our public institutions for the reception of the insane, and in the general treatment of insanity, many abuses yet remain to be corrected. Dr. Garrett Dillon, whose exertions in the cause of his fellow creatures bereaved of reason deserves the highest praise, justly observes,

"There is one thing in relation to the insane peculiarly worthy of notice—the richer the patients are, and the more paid for their care, the less chance have they of recovering: of those pronounced lunatics after legal investigations, and placed under the care of the Court of Chancery, none, at least that I have heard of, ever recovered, and got into repossession of their property. The victims of this description and class are usually placed, singly, with medical men, and too often neglected."

In public asylums, although no motives of the above kind can be alleged, patients are sometimes confined long after the state of their reason would admit of emancipation from the most dreadful of thraldoms, while the conduct of the keepers and inferior menials is too often calculated to convert slight aberrations of the intellect into confirmed mania. The statements of Miss Newell upon this latter point are deeply affecting; may we hope that the abuses to which she points, have long since ceased to exist.

"Most of the rooms in St. Luke's Hospital," says Miss Newell, "or rather cells, appropriated for the patients, have a hole near the top in the shape of a half circle, called a window; immediately under this, on the floor, is a crib filled with straw, on which is placed a flock bed. At the foot of this crib an iron ring is attached, with a chain to it, for the purpose of confining the patient's leg. Of a winter's morning the shutter has been let down, and the cold wind, rain, and snow, have fallen upon me, while I had scarcely sufficient covering to keep me warm. Wishing to be employed, I was allowed by the keeperess to assist her in her menial services, which I and others have done most cheerfully; as also to wash and comb the patients. One young woman, who was almost constantly confined to her crib, with only straw to lie on and a bit of blanket to cover her, had her head so swarming with vermin, that it was eaten into holes by them: the corruption and filth that has been on the comb after I have combed her head, has caused me repeatedly to heave. For such services we have had broken victuals given to us, which were then and at all times very gratefully received by us. I as well as others have frequently been so much in want of food, that we have selected scraps to eat that have been sent for the cat from the keeperess's table. After being confined rather more than four months, I was discharged by the physician as cured; but what I

was cured of I could not imagine, unless it was of purity of thought and desire. Each gallery has two rooms, containing four beds; and the second time I was admitted, I slept for a few weeks in one of them. I knew I had no right in any other apartment, but thought I might go for quiet into my own; an old woman, however, who had been confined for nearly twenty years in the Institution, slept in the same room, and she has repeatedly turned me out and bolted the door, so that it could not be opened but with a key that she or the keepers had in their possession.

"One morning a woman of very interesting appearance was sitting by my side confined in a strait-waistcoat, which was tied very tight; she complained of it hurting her, and asked me to untie it. I had suffered so much from strait-waistcoats, that I felt as though I had one on myself. I thought no harm could result from merely loosening the knot, and was in the act of so doing when the keepers entered, and, without asking a single question, caught hold of me, beat me with her double fist, and drove me before her into a room where the raving maniacs were chained: and for thus sympathising with a sister in affliction, I was confined amongst the worst of the patients the whole day, with a chain rattling to my leg.

"During the last three months of my twelve-month's incarceration in the Hospital, I was confined to my bed every night with a chain rattling to my leg, and also every Sabbath: so that from Saturday night to Monday morning I was a prisoner in my cell, with my leg confined to an iron ring and chain. I, with several other women, have been pulled out of our beds earlier than usual to walk down three or four flights of stone stairs, without shoes or stockings on, or any garment whatever, with only a small blanket round each of us, to be thrown into the bath, and if any woman had previously offended the keepers, they would punish her by holding her head under the water. The keeperess, in a consequential and peremptory manner, has ordered me to get a pail of water, and clean my room out; when I have done that, and in such a manner that no fault could justly be found, she has abused me for not doing it in the way she thought was right, expressing at the same time her astonishment of the little use ladies were of."

Having thus painfully suffered in her own person the miseries of a madhouse, Miss Newell may well conclude her pamphlet with a fervent prayer, "that the evils of the present system may be speedily exposed and reformed."

ROYAL BERKSHIRE HOSPITAL.

(Practice of Mr. F. A. BULLEY.)

ACUTE OPHTHALMIA AND SUPPURATION OF THE LACHRYMAL SAC.

JOHN MOORCOCK, æt. thirty-seven, was admitted into hospital, April 23rd, 1841. On admission, the left eye and surrounding parts presented the following appearances of disease. The conjunctiva generally was in a highly vascular condition, more especially that part of it lining the lids, where it had a granular appearance. The lids

themselves were cedematous, and occasioned great difficulty in unclosing the eye. The oedema extended to the integuments covering the lachrymal sac, where a slight redness was perceptible, but there was no fluctuation to indicate any collection of water in the sac. The cornea was completely opaque, and the iris had begun to participate in the disease. There was an entire loss of vision. He complained of considerable pain in the eye-ball, which he had experienced, in a great degree, for a week before admission, especially at night. He attributed the occurrence of inflammation at the present time to cold, having suffered from similar attacks from the same cause at times, although not so severely, during the last five years. He had had a partial obstruction of the lachrymal passages for some time, and sometimes swelling over the sac, and an erysipelatous state of the eyelids, but it had usually subsided spontaneously. The tears now ran over the cheek, and on pressing the sac, a small quantity of matter exuded through the ducts. There was considerable febrile disturbance; great pain in the head.

Calomel, four grains;
Opium, two grains;
Tartar emetic, one grain.

A pill to be taken every fourth hour. Twelve leeches behind the ear. The constant application of warm water to the eye.

26. The inflammation has in a great degree subsided, but the vessels of the conjunctiva are still turgid; fever and pain in the head removed. Considering the disease to have in some measure assumed a chronic character, I recommended the following lotion to be used every half hour:—

Nitrate of silver, seven grains;
Distilled water, one ounce.

A mutton chop and half pint of porter daily.

29. Improving. Cornea has become more transparent; says he can see a little. Janin's ophthalmic ointment, composed of Tutty powder and bole armeniac finely powdered and mixed with lard, was ordered to be applied between the lids, and a lotion containing sulphate of zinc to be injected with a syringe, three or four times a day. The oedema of the eyelids had subsided, but an abscess has formed over the lachrymal sac, and burst this morning. Pus continues to exude through the ducts.

May 7. Has been daily improving since last report. The fistula lachrymalis has healed, but matter continues to exude on pressing, through the ducts. He now sees tolerably well, and the cornea has become quite transparent.

Compound decoct. of bark, four ounces;
Comp. decoct. of sarasparilla, eight ounces.

A wine glassful twice a day. The injection and the ointment of Janin have been continued.

10. Still improving. The vascular turgescence of the conjunctiva is quite removed. Some little appearance of inflammation of the iris remaining. I ordered—

Compound decoct. of bark, eight ounces;
Spirit of turpentine, two drachms.

Three tablespoonfuls twice a day.

Sulphate of copper, six grains;
Distilled water, eight ounces: a lotion.

To be injected with a syringe, three or four times a day.

18. The eye has assumed a perfectly healthy appearance, and he can now see objects at a great distance very clearly. No matter exudes through the lachrymal ducts on pressure, and the swelling over the lachrymal sac has subsided. But the tears still partially flow over the cheek, showing that the passage through it is obstructed, probably by a thickening of the mucous lining of the sac, the result of the previous inflammation. I wished him to remain in the hospital, with a view to the removal of this part of his complaint, but as he was anxious to return to his family, he was discharged.

Remarks.—It would be difficult in this case to determine exactly in which structure the inflammation originated, whether it extended from the lachrymal sac to the conjunctiva, or whether the conjunctiva was primarily affected. It was the opinion of Scarpa, that most of the cases of inflammation of the lachrymal sac were the result of a depraved and increased secretion from the Meibomian follicles, as well as of a chronic inflammatory condition of the conjunctival membrane. In this case the patient had observed a redness, and felt a sensation of fulness over the situation of the lachrymal sac, for some time before the eye itself became affected, and it was not until he had repeatedly suffered from this affection, and matter could be squeezed through the duct, that he began to feel any inconvenience, or, as he called it, weakness of the sight. It is, therefore, fair to infer that the lachrymal sac was primarily the seat of disease, and I fear that unless a free passage through it be fully restored, and the tendency to inflammation in it be so prevented, he will occasionally be subject to a return of his complaints. My principal object in recording this case, however, is to show the great utility of tepid astringent lotions, injected frequently with some force through a syringe, as a douche to the part. I have had several similar cases, and have used the same means with the most successful results, attributing many of the good effects produced to remedies applied in this manner, in preference to the common mode of using lotions to the eye, which frequently, where much inflammation exists, never reach the surface of the eye at all, and, in most cases of diseased secretion from the lachrymal sac, cannot be so used as to remove the secretion, which in some cases, as in the one I have detailed, may be considered the primary source of irritation.

MEDICAL REFORM.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—I have attentively perused the reform report, and the proposed memorial to the Secretary of State for the Home Department, published in your Journal for August 21, and after all that has been said on the subject, my humble opinion is, that if greater powers were given to the existing colleges, many of those benefits for which we have so long and so anxiously waited, would be speedily obtained. At present, the powers of the Royal Colleges of Physicians and Surgeons are so limited, that they can afford no protection to the practitioner. The question has been frequently put to me, and will probably

be put by any minister of state to whom the memorial may be presented, If any reform is needed in the medical profession, why do not the colleges, as the heads of that profession, step forward and make the request? The fact is, the College of Surgeons, many years ago, petitioned parliament for this very purpose, but some of the members of the House of Commons considered this petition an attempt to procure a monopoly of surgical practice, and it was rejected. The college, still persevering in its endeavours to prevent a great public evil, and desirous of freeing itself from all imputation of being actuated by interested motives, brought forward a new bill, entirely of a public nature, which was also rejected, (vide Mr. Abernethy's Hunterian Oration for 1819), and will not any memorial we may present to the Secretary of State share the same fate? Most assuredly it will, unless the present state of the profession, and want of power in the colleges to redress the evil, be clearly and satisfactorily explained. Ministers of state, be it remembered, have little time for subjects of this description, and may, very fairly, be presumed to have little knowledge of medical affairs, therefore the matter should be clearly and forcibly stated in all its parts; but as I very fully explained my views on this subject in a letter on Medical Reform, published in the Medical Gazette of August 14, 1840, I consider it needless to trouble you with them on the present occasion.

But another obstacle presents itself, which is well worthy of consideration. Sir Henry Hallford, in his letter to Mr. Carter, March 9, 1841, declares that "the College of Physicians cannot sanction any measure which contemplates the amalgamation of the existing orders of the medical profession into one faculty;" but he afterwards adds, that "the college is most anxious to adopt such measures as will ensure a high grade of education, and uniformity of qualification for physicians, as well as protect the interests of that branch of the profession in the three kingdoms; and it will cordially co-operate in any proposal to the legislature, having a similar object with respect to surgeons and to apothecaries." And in the conference which the delegates lately had with the College of Surgeons, Mr. White said, "he thought the constitution of the college could not be improved; he was unwilling it should undergo the slightest alteration—they were surgeons—they knew nothing but surgery—had nothing to do with medicine or midwifery—and as to pharmacy, they were not required to know what calomel was—its new name was foreign to their ears—they kept strictly to their own department—he did not know of a single defect in the college, but if such could be pointed out, he was sure the president would exert himself to effect its removal." Mr. Guthrie, the vice-president, said "there was nothing in the shape of abuse which the three London corporations were not willing to amend, but they wished to take their own way of doing it; they were preparing a bill to parliament, and the only difference between their plan and that of the delegates was, that they would try to prolong their own existence, and not erect a new establishment, which was to serve instead of the old ones; the latter might be subservient to the proposed end."

Now, from all this it appears very clear to me, that the two Royal Colleges will strenuously and successfully oppose the proposed measure, even

should it be brought forward by the Secretary of State for the Home Department. Still, from the declaration of Mr. Guthrie, that there was no grievance which the college was not anxious to see removed, and the assertion of Mr. White, that they were surgeons, and had nothing to do with medicine or pharmacy, but kept strictly to their own department; I am inclined to believe, that if the general practitioners, as they are now called, would consent to abandon pharmacy, the College of Surgeons would cordially support their endeavours, and the College of Physicians would not refuse their sanction; but as long as they consent to act as apothecaries, so long will both colleges continue their opposition.

I am, Gentlemen,

Your obedient servant,

G. HARVEY.

Castle Hedingham, August 29, 1841.

VARIETIES

IN THE

DISTRIBUTION OF VESSELS INTERESTING TO THE SURGEON.

By PROFESSOR HYRTL, Prague.

It has generally been admitted by anatomists, that the primary carotid bifurcates in the male, opposite the upper edge of the thyroid cartilage, and in the female, opposite the lower edge. In infants of both sexes, the artery always divides below the upper edge of the cartilage; in persons disposed to phthisis, and in those who have long necks, the artery bifurcates low down, while in short-necked people the artery often divides on a level with the os hyoides.

In children, it is much easier to find the two trunks of the carotid artery, and to isolate them, than in adults, because the angle of the jaw in children does not descend so low down, and the ramus is shorter. In the body of a tuberculous patient 40 years of age, M. Hyrtl found the primary carotid dividing at the fifth cervical vertebra; in a woman who died of cancer of the womb, its bifurcation took place very high up; the superior thyroid, laryngeal, lingual, occipital, and posterior aural arteries, arose from the common carotid; the latter, immediately after having furnished these branches, dipped under the parotid gland, and there divided into internal and external branches, not far from the root of the styloid process. In another case, there was a species of transposition of the two branches, the facial one being placed outside the cerebral. In a young lad there was absence of the inferior thyroid artery on the right side, which was replaced by an ascending branch from the innominate. The varieties of the great vessels which arise from the arch of the aorta, are very numerous in the Museum of Prague. In one specimen, the right carotid and subclavian arise immediately from the arch; the latter arises to the left of the median line, and crosses over in front of the trachea; in six specimens, the left carotid arises from the innominate; there are six examples of the *thyroidea ima* artery, which in all cases was placed between the deep cervical fascia and the trachea; in seven cases, the left vertebral

artery arose directly from the arch, and in two, the vertebral entered at once the foramen in the transverse process of the seventh cervical vertebra. In one case, both thymic arteries come by a single trunk from the anterior edge of the arch. The other anomalies of this class are, a right subclavian artery arising after the three other trunks, and passing behind the trachea; an internal mammary, arising from the arch, close to the innominate; the aorta winding over the right bronchus, and descending along the right side of the bodies of the vertebrae; the right coronary artery, in this rare case, was replaced by the left one.

Amongst the anomalies connected with the subclavian artery, M. Hyrtl mentions the following:—

CASE I.—In the body of a young man who died of inflammation of the inferior cava, the subclavian artery was found covered by two subclavian veins, one of which passed in front of the scalenus muscle, while the other passed behind it close on the artery.

CASE II.—In a young girl, 23 years of age, the deep cervical artery arose from the internal mammary; it was extremely large, and furnished most of the branches which usually come from the transverse cervical; it ran close to the subclavian, behind the scalenus muscle, and then gave off a large branch, which entered the foramen in the fourth cervical vertebra, and joined the vertebral artery.

The varieties of the arteries of the arm and forearm are so common and well known, that we need not follow the author in his enumeration of them. In one case, the left primary iliac was much shorter than the right one, the bifurcation took place very high up, and the hypogastric artery ran for a considerable way close along the external iliac, before it dipped into the pelvis. The origin of the obturator from the epigastric or external iliac, was found to occur more frequently on the left side than on the right; in one case, the profunda femoris arose from the external iliac, about Poupart's ligament; this variety is not very rare, and is of much importance relative to the operation of tying the femoral artery in Scarpa's triangle. An anomaly, not hitherto noticed, occurred in a boy 15 years of age; the *dorsalis penis*, and the artery of the corpus cavernosum, arose from a transverse pubic branch of the epigastric.

—*Gaz. Med. and Austrian Jahr.*

LIVERPOOL SUMMER ASSIZES.

NISI PRIUS COURT, FRIDAY.

THE APOTHECARIES' COMPANY v. GREENOUGH.

THIS was an action brought by the master-warden and governors of the Apothecaries' Company, in London, against the defendant, Henry John Greenough of St. Helens, to recover certain penalties to which he had become liable, in consequence of having practised as an apothecary, he not being duly qualified. A special jury was empanelled.

Messrs. Cresswell, Adolphus, and Robinson appeared for the plaintiffs. The cause was undefended.

Mr. Cresswell observed, that the action was brought by the Apothecaries' Company to recover the penalties incurred by the defendant, in conse-

quence of his having attended on a person named John Gerrard and others, and for having administered medicines to them since the year 1815, he not having been a practitioner at the period of the passing of the act giving certain powers to the company. The Apothecaries' Company had deemed it right to commence the present action, in pursuance of a very important duty with which they were entrusted, in order to protect the public against persons not duly authorized, from practising as apothecaries. There were none of the jury who would not be of opinion, that there should be some superintending power over those who were to dispense medicine, and therefore the legislature had taken care that none but those who had undergone a proper examination, and received a certificate of such examination, should be allowed to practise. In all cases of the different courts none were now allowed to practise as attorneys, except such as had undergone an examination as to their fitness; and more important was it that those who had the care of the health of the people should be duly qualified, in order that no considerations of cheapness might induce persons to avail themselves of the assistance of those who had not undergone proper instruction and examination. Long ago the Apothecaries' Company had received a charter of incorporation, but in the year 1815 it was thought they had not sufficient powers, and therefore an act was passed giving them greater authority, and he (Mr. Cresswell) believed it was very generally admitted, that since that period the company had done a great deal towards raising the character of the profession. The present action was not brought for the purpose of putting money into the pockets of the company, but simply with a view of guarding the profession against the introduction of improper persons. Mr. Cresswell then proceeded to read the clauses of the Apothecaries' Act, which prohibited persons from practising as apothecaries, unless they had been examined by the Court of Examiners, and shall have received a certificate to that effect, under a penalty, in the case of a principal of £20, and in the case of an assistant of £5. There was, however, an exception as to those who had practised previous to the act passing, and also as to chemists and druggists. He (Mr. Cresswell) should prove, that the defendant had regularly practised as an apothecary in St. Helens for some time; that he had set up a shop there in his sister's name, for the purpose of evading the act, but had himself attended people in the neighbourhood, and had administered medicine to them. There were two ways in which people evaded the provisions of the act; one was by calling themselves surgeons, but, in order to bring themselves within that designation, they must attend to surgical cases only, and merely administer such medicines as were auxiliary to the wound. Sometimes the act was evaded by persons professing to act as chemists and druggists. The learned gentleman, after quoting the clause of the act referring to druggists, said the case had been tried before, and the learned judge had decided that the case came within the exemption in the act, and therefore a verdict was obtained by the defendant. The matter, however, had been argued before a superior court, and the learned judge's decision had been reversed, the defendant's case not coming within the meaning of the exemption—chemists and druggists being confined simply to

preparing and dispensing medicine, and not to administering it, such preparing and dispensing being understood to mean the preparing and dispensing of medicine from prescriptions previously given. The learned gentleman said he should not go for more than one penalty, as that would satisfy the justice of the case.

Evidence was then called to prove, that the defendant had attended a person named John Gerrard, of Peesley Cross, near St. Helens, in the beginning of 1839, for about a fortnight, almost daily up to his death; that he had bled him and administered medicines to him. The defendant said, the disease with which Gerrard was afflicted was intermittent fever. It was also proved, by Joseph Marsh, that the defendant had attended his wife whilst ill of inflammatory fever, and had administered medicine to her. The defendant had told Marsh that he had upwards of three hundred patients.

The learned judge then summed up the case, and the jury found a verdict for the plaintiffs, damages £20.—*Liverpool Albion*.

PROVINCIAL SCHOOLS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—The Faculty of the Bristol Medical School have recently had good ground to believe, that which they had for some time suspected, that great ignorance prevails among the profession, as to the degree in which the provincial schools are capable of qualifying for examination by the London boards. A surgeon, attached to a public institution in this city, is known to have declined receiving a pupil, on the ground that a metropolitan education is required (as it was not long since) by the College of Surgeons.

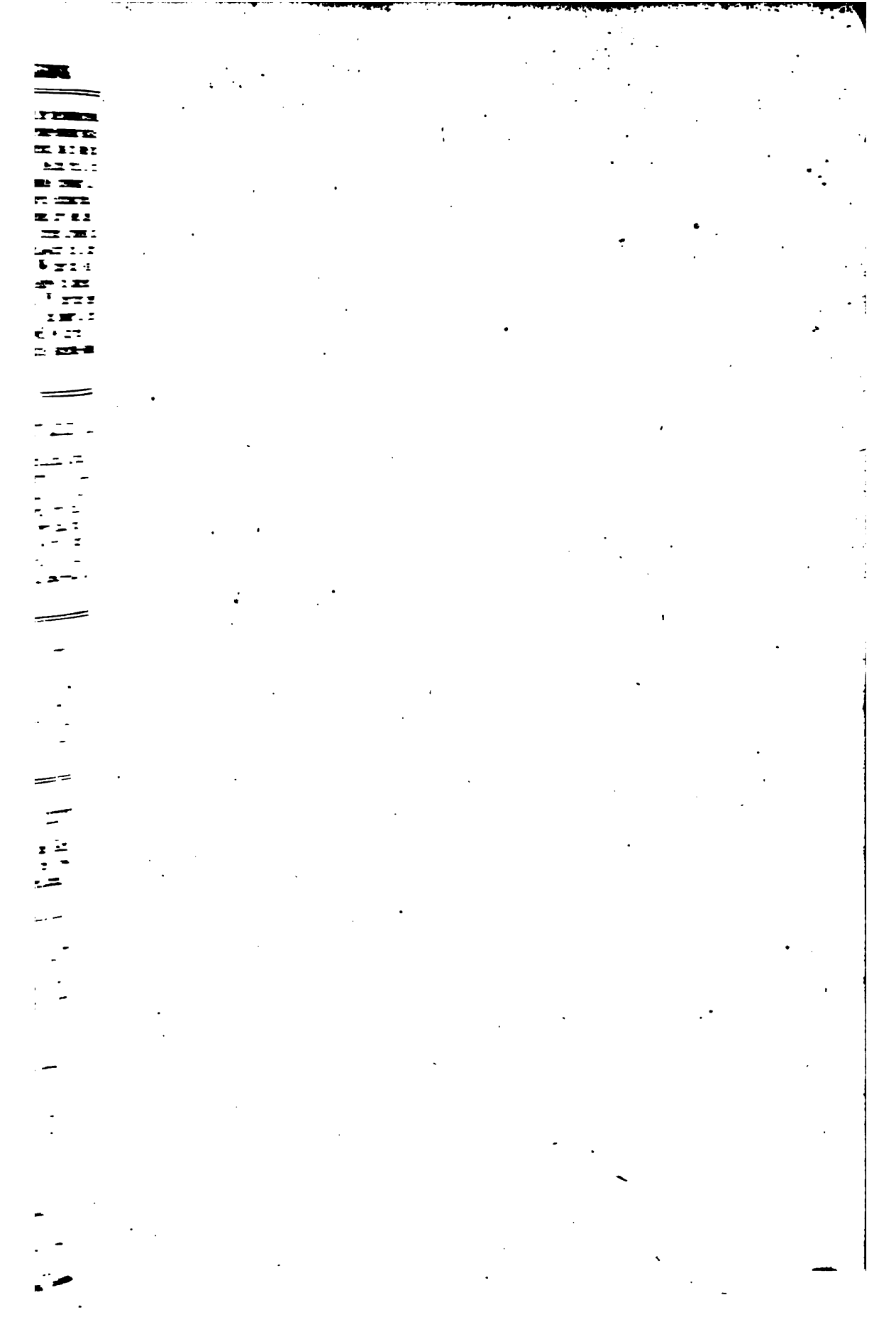
I am directed by the faculty, therefore, to express the hope, that you will take the earliest practical opportunity of directing the attention of the profession, through a short editorial article, to the fact that the provincial schools are on a footing of perfect equality with the Metropolitan, in regard to their recognition by the examining boards in London. We are far from wishing you to recommend an exclusively provincial education; but we think that students ought to be aware, that they have their free choice, and that there are many advantages attendant on the prosecution of their early studies in provincial schools.

I may direct your attention to the fact that, at the last examination at the University of London, the *only three* gentlemen who went up from the Bristol school, *all passed*, one of them in the first class; whilst of those who went up from the metropolitan schools, a large proportion were rejected.

As the session will so soon commence, we venture to hope that you will give early attention to this matter.

I am your obedient servant,
WILLIAM B. CARPENTER, M.D.
Honorary Secretary.

Kingsdown, Bristol, Aug. 27, 1841.





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